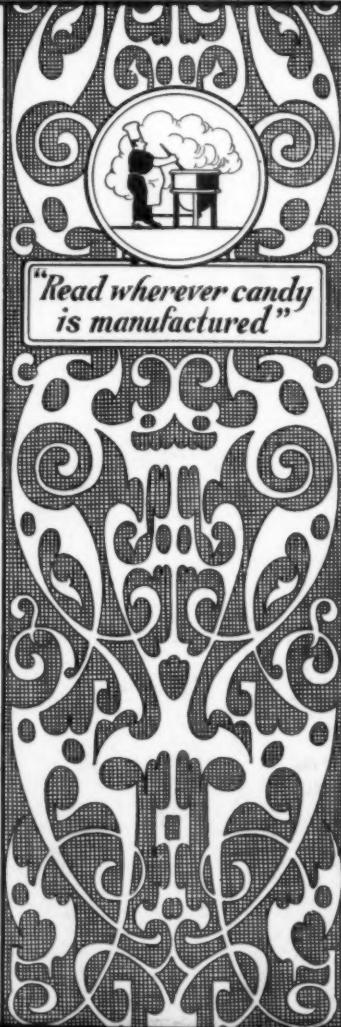


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The MANUFACTURING CONFECTIONER

Published by THE MANUFACTURING CONFECTIONER PUBLISHING CO., MDSE. MART—Chicago, Ill.
Editorial Office, 303 West 42nd St., New York City.



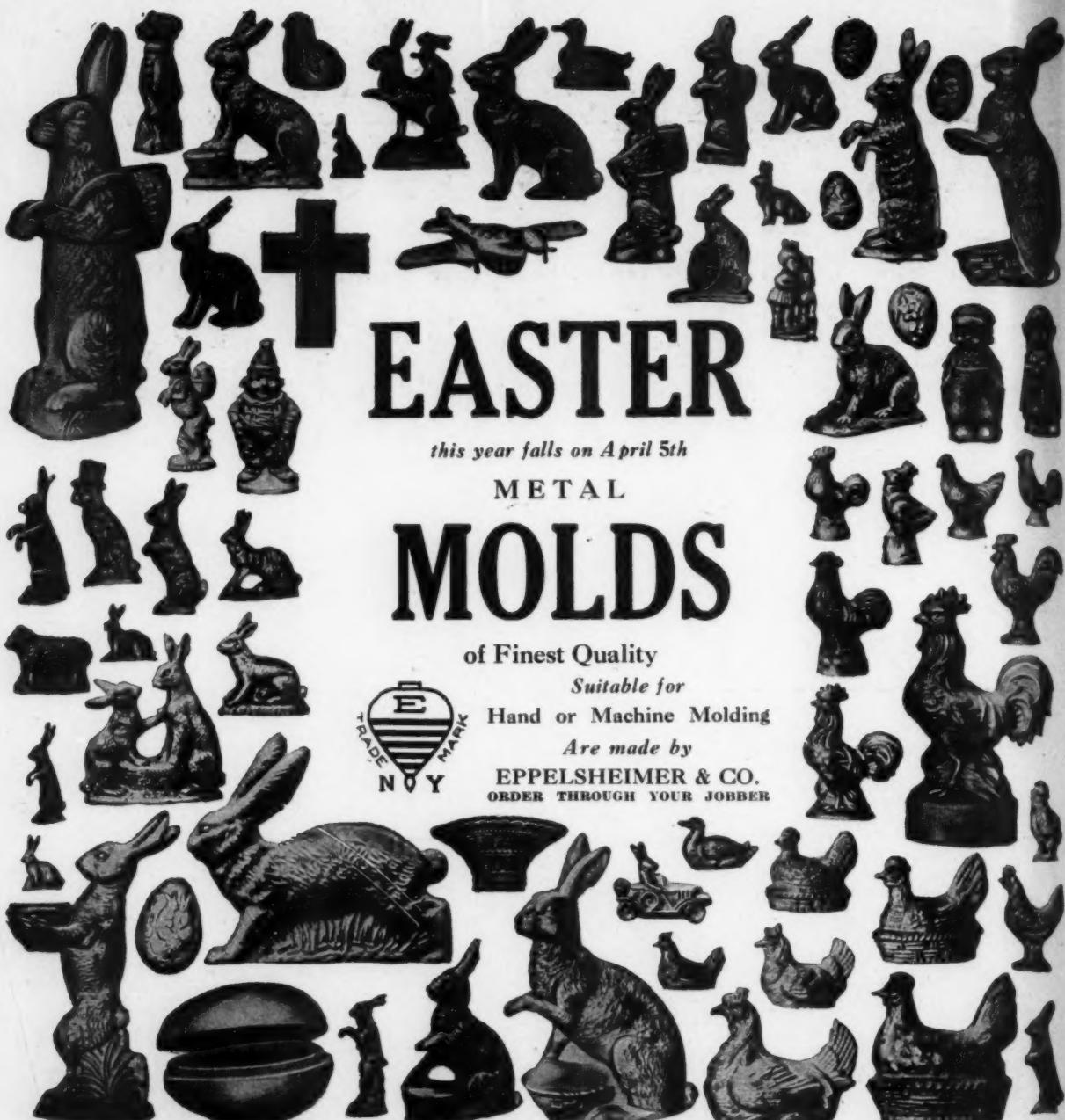
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Fruit Candies Cruess

Highlights in the History of Sugar

Proposed Credit Survey



EASTER

this year falls on April 5th

METAL MOLDS

of Finest Quality



Suitable for
Hand or Machine Molding
Are made by
EPPELSHEIMER & CO.
ORDER THROUGH YOUR JOBBER

EPPELSHEIMER & CO.

34-44 HUBERT ST.
NEW YORK

MOTHER'S HEART BOX
MAKES A PRETTY MOTHERS DAY PIECE
EXTRA COVERS CAN BE HAD LETTERED
HAPPY BIRTHDAY
TO MY VALENTINE



The MANUFACTURING CONFECTIONER

Vol. XI

MARCH, 1931

No. 3

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ESSENTIAL OILS and Kindred Products

**The QUALITY PRODUCT plays
the ace and wins each time**

You will be greatly ahead in your sales and therefore in your profits if the flavor is right—use our new lines, modern type, FRUIT FLAVORS, "NECTAROMES" and "NECTARSYNTH"

- Apple,
- Apricot,
- Banana,
- Blackberry,
- Cherry,
- Wild Cherry,
- Red Currant,
- Black Currant,
- Gooseberry,
- Grape, Concord,
- Loganberry,
- Nectar,
- Peach,
- Pear,
- Pineapple,
- Pistachio,
- Plum,
- Quince,
- Raisin,
- Raspberry,
- Strawberry

These concentrated flavors, moderately priced, produce an exceptional resemblance to the aroma of the fruit.

DODGE AND OLcott COMPANY
180 Varick Street New York City

"The integrity of the house is reflected in the quality of its products."

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The Manufacturing Confectioner's Approved Advertising of
Confectioners' Machinery and Supplies

**and Miscellaneous Advertising Directed to
 Manufacturing Confectioners**

POLICY: THE MANUFACTURING CONFECTIONER is essentially a manufacturers' publication and therefore is a logical advertising medium only for confectioners' supplies and equipment. The advertising pages of THE MANUFACTURING CONFECTIONER are open only for messages regarding reputable products or propositions of which the manufacturers of confectionery and chocolate are logical buyers.

This policy EXCLUDES advertising directed to the distributors of confectionery, the soda fountain and ice cream trade. The advertisements in THE MANUFACTURING CONFECTIONER are presented herewith with our recommendation. The machinery equipment and supplies advertised in this magazine, to the best of our knowledge, possess merit worthy of your careful consideration.

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Gold Anchor Brand



LEMON and ORANGE OILS

THERE is a marked difference in the quality of Italian oils of Lemon and Orange emanating from various sources in Italy.

Realizing this, it is with pardonable pride that we offer our GOLD ANCHOR brand citrus oils as the ultimate in quality. They are produced for us by S & G De Pasquale of Messina, Italy, whose reputation as producers of the finest hand-pressed oils is world wide. Only rigid adherence to the superior hand-pressed method of production and the selection of the best of the Italian fruit crop, afford them this rank.

We unqualifiedly guarantee that the unsurpassed strength, unvarying uniformity and freedom from rancidity of the GOLD ANCHOR oils will more than repay the consumer for the slight premium in the initial cost.

New crop prices for Italian citrus oils are quoted slightly higher than those which have prevailed for the past few weeks. In spite of these higher quotations from Italy, substantial advances are unlikely, but today's prices represent the most favorable levels witnessed in many years. We recommend purchasing at this time, and will be very pleased to submit samples and quote prices on specific quantities.



UNGERER & COMPANY
NEW YORK

Philadelphia . . . Boston . . . Atlanta . . . Toronto . . . Chicago . . . St. Louis . . . San Francisco

Quality that never varies!

What a satisfaction it is to use chocolate coatings you can depend on season after season, year after year! Always the same rich flavor. Always the same smooth texture. No anxiety about the increasing critical consumers. It pays to use

MERCKENS Fondant Process Coatings

These features make Merckens Fondant Process Chocolate unsurpassed in quality. Variety that covers every requirement.

For high quality vanilla coatings we recommend:

- | | |
|------------------------|---------------------|
| 1. Tehuantepec Vanilla | 2. Richmond Vanilla |
| 3. Bourbon Vanilla | 4. Brighton |

Milk Coatings

1. Alderney Milk 2. Geneva Milk 3. Normandy Milk

**Merckens Chocolate Company., Inc.
Buffalo, N. Y.**

— BRANCHES —

NEW YORK	BOSTON	LOS ANGELES
25 W. Broadway	131 State Street	412 W. Sixth Street
CHICAGO		

Handler & Merckens, Inc.
180 W. Washington St.





If you want action from your Salesmen
in increasing your candy sales, put out
an "ALL-FRUIT BOX" containing

BLANKE-BAER DIPPING FRUITS

Pineapple Cubes
Peach Cubes
Dipping Raisins
Dipping Kumquats
Dipping Strawberries
Dipping Cherries

Now is the time to start working on this "All Fruit Box" so as to have it ready for your "Fall drive." You should also make it a rule to include in every box of your Fruit and Nut Assortment a liberal quantity of Fruit Filled Chocolates containing these Dipping Fruits.

Write for full information and contract prices

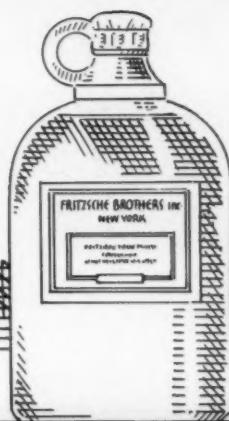
Blanke-Baer Extract & Preserving Co.

3224 South Kingshighway



St. Louis, Missouri, U. S. A.

INIMITABLE FRITZBRO FLAVORS



F R I T Z B R O C O C O N U T

Imparts to shredded and other forms of prepared coconut the tasty and true flavor of the fresh, ripe fruit . . . blends with especial deliciousness in Vanilla and Chocolate Candies. Conveniently prepared in concentrated and soluble form.

F R I T Z B R O B L A C K W A L N U T

Having the unique tang and lusciousness of the genuine black walnut, it offers a highly concentrated and matchless imitation of the true walnut flavor. Combined with Fritzbro Maple Base or Fritzbro True Maple Concentrate, it provides most delicious and appealing flavor effects.

F R I T Z B R O M A P L E B A S E

A remarkably true simulation of the genuine flavor of pan boiled Vermont Maple Syrup . . . Its composition is of purely vegetable origin . . . Highly concentrated . . . Extremely economical . . . *The imitation maple flavor supreme.*

F R I T Z B R O T R U E M A P L E C O N C E N T R A T E

For those who prefer a strictly *genuine* and *natural* Maple product, economy and convenience dictate the use of Fritzbro True Maple Concentrate . . . a perfect replacement for Maple Sugar. The flavor of finest maple syrup is presented in highly concentrated and soluble form.

Samples and Full Details on Request

FRITZSCHE BROTHERS • Inc.

"A FLAVOR FOR EVERY PURPOSE"

78-84 BEEKMAN ST.
New York

Toronto
FRITZSCHE BROTHERS of CANADA, Ltd.
77-79 Jarvis St.

118 WEST OHIO ST.
Chicago

CHOCOLATES for the Super-critical have these *FINER COATINGS*



MANUFACTURERS of top-price confections know they can always depend on Peter's Coatings to give their superior confections the perfect finishing touch. Rich . . . full-flavored . . . lustrous . . . satin-smooth!

Every flavor. Milks, Vanillas, Sweets, Bitter Sweets and Liquors. At prices to fit every need.

Your chocolates are judged by their coatings. For consistently better results, use Peter's.

Peter Cailler Kohler Swiss Chocolates Co., 131 Hudson St., New York City. Branches: Nicholas Bldg., Toledo, Ohio; 1319 S. Clinton St., Chicago, Ill.; 3620 Third Ave. So., Minneapolis, Minn.; 24 California St., San Francisco, Calif.

Peter's CHOCOLATE COATINGS

TASTES THAT ARE EXACTING—CRITICAL—ARE INvariably PLEASED WHEN CHOCOLATES HAVE "COATINGS BY PETER'S"



He's been using Roba in his car- amels ever since

A well-known candy manufacturer in the East had enjoyed for many years a reputation with the trade for making exceptionally fine caramels.

About two years ago one of our salesmen asked him to try Roba in his caramels. He finally agreed, although he told us frankly that he was well satisfied with the butter he had been using for some time.

We learned very little about this first test. But shortly after, he ordered another case of Roba for further testing.

And then three months later he wired a sizable order for Roba—enough to convince us that Roba had proved more than satisfactory in the preliminary tests.

It is significant that this manufacturer has been using Roba for his caramels ever since.

Roba has many qualities which make it an unusually fine product for use in caramels and all chewing candies.

Roba is a uniform product from every standpoint. That is why it can be depended upon to assure uniform results.

Roba is bland and neutral. It has no flavor of its own to interfere with the taste you wish your goods to have. When you add vanilla to a caramel formula which includes Roba, you're sure to get a true vanilla-flavored product.

Roba caramels can be cooked at lower temperatures. They cut smoothly and retain their sharp corners. They have fine eating qualities—do not stick to the teeth. Caramels retain their freshness longer because Roba shares with them its own remarkable stand-up properties.

Roba is the all-around confectioner's hard butter. Its blandness, uniformity, and unusual stand-up qualities make it equally good for coatings, nougats, scotches, toffees, kisses and chewing candies.

Try Roba in your caramels and coatings, and compare results. We'll gladly send a free sample for your chemists to examine and test.

Procter & Gamble
Cincinnati, Ohio

*This
in 1930 was
indeed gratifying*

THE past year has not been kind and generous. We have all had difficulties and perplexities aplenty. But, for Walter Baker and Company, 1930 will go on record as a year of supreme importance. *Its active account list increased by almost one thousand, for that number of manufacturers placed their first orders for Baker products.*

In a year when everyone was scrutinizing his business with the utmost care to discover some way in which to improve sales and profits, this fact is indeed significant. It shows the ever-increasing acknowledgment of the superiority of Baker products.

*There's a Baker coating
to meet every price, flavor
and color requirement.*



*Baker's Laboratory and
Technical Staff are at
your service. Use them!*

REG. TRADE MARK

WALTER BAKER & COMPANY, Inc.
DORCHESTER, MASS. MONTREAL, CANADA
*Chicago Office, 208 West Washington Street
Pacific Coast Representatives, MAILLIARD & SCHMIEDELL*

CERELOSE Simplifies THE REFINED DEXTROSE FROM CORN pH Control of Marshmallow

IT is no news to the Marshmallow Manufacturer that the whiteness of his batch is largely a matter of controlling its acidity, or pH. Many manufacturers make it a practice to "buffer" their batches to offset the inevitable variations in the pH of their raw materials. The adjustment is often a delicate one, because in a batch containing ordinary sugar, boiling in the presence of acid pro-

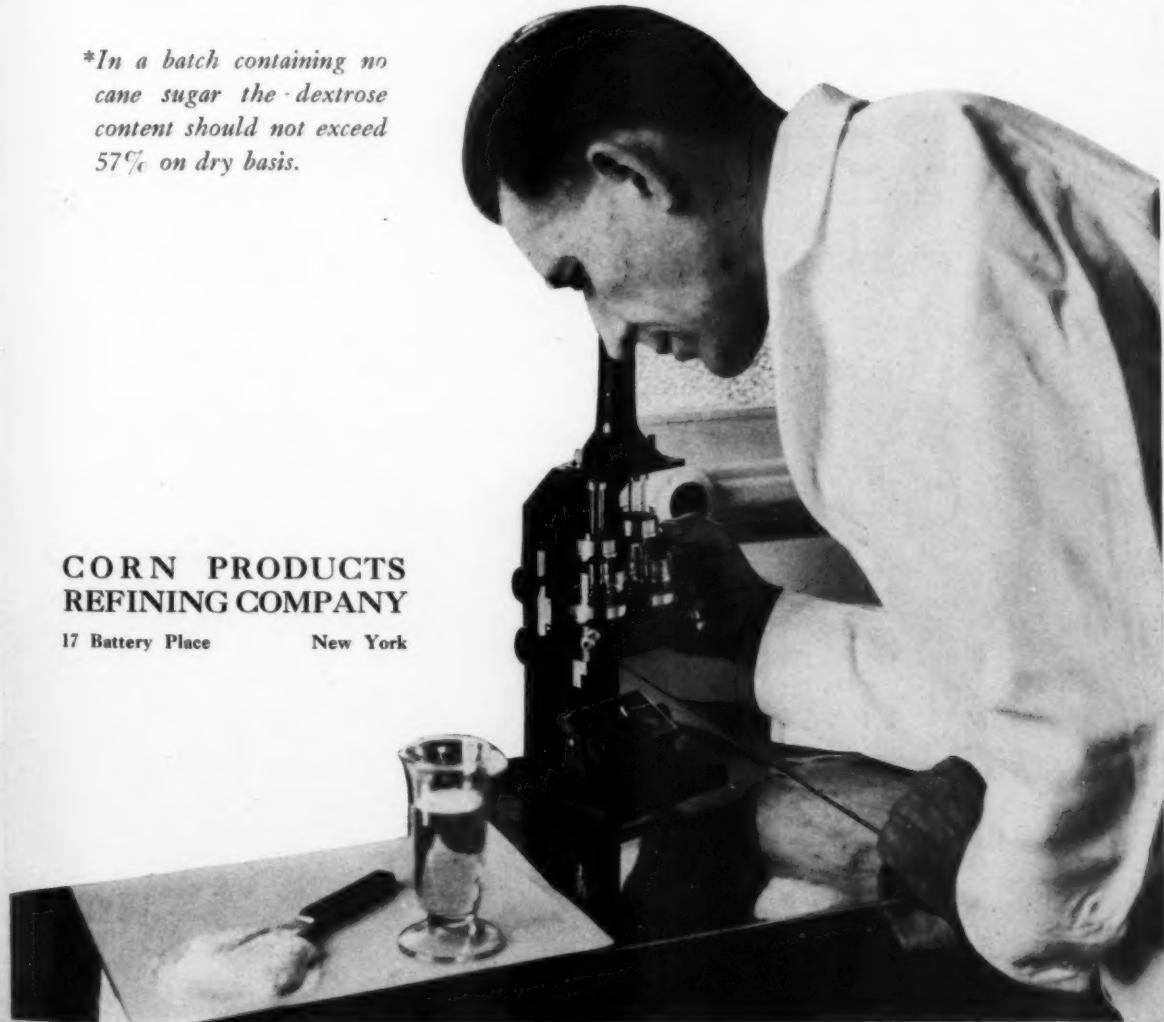
duces a variable quantity of invert sugar. CERELOSE cannot be inverted. Batches composed of CERELOSE and corn syrup only*, may be cooked on the acid side with perfect safety. Gelatine, which is critical as to pH, acts more surely and efficiently under these conditions. The result is a marked improvement in whiteness, texture, flavor and keeping quality.

**In a batch containing no cane sugar the dextrose content should not exceed 57% on dry basis.*

**CORN PRODUCTS
REFINING COMPANY**

17 Battery Place

New York



It takes a **BIG PLANT**

to do

BIG THINGS

ROCKWOOD & CO.

A modern laboratory, with modern machinery, skilled employees, and plenty of sunlight and air • These are the units that produce *chocolate products* of absolute uniformity . . . rapidly • Likewise, its your guarantee of quality . . . and value . . . and service • Truly, its the plant behind the product and the name behind the plant.

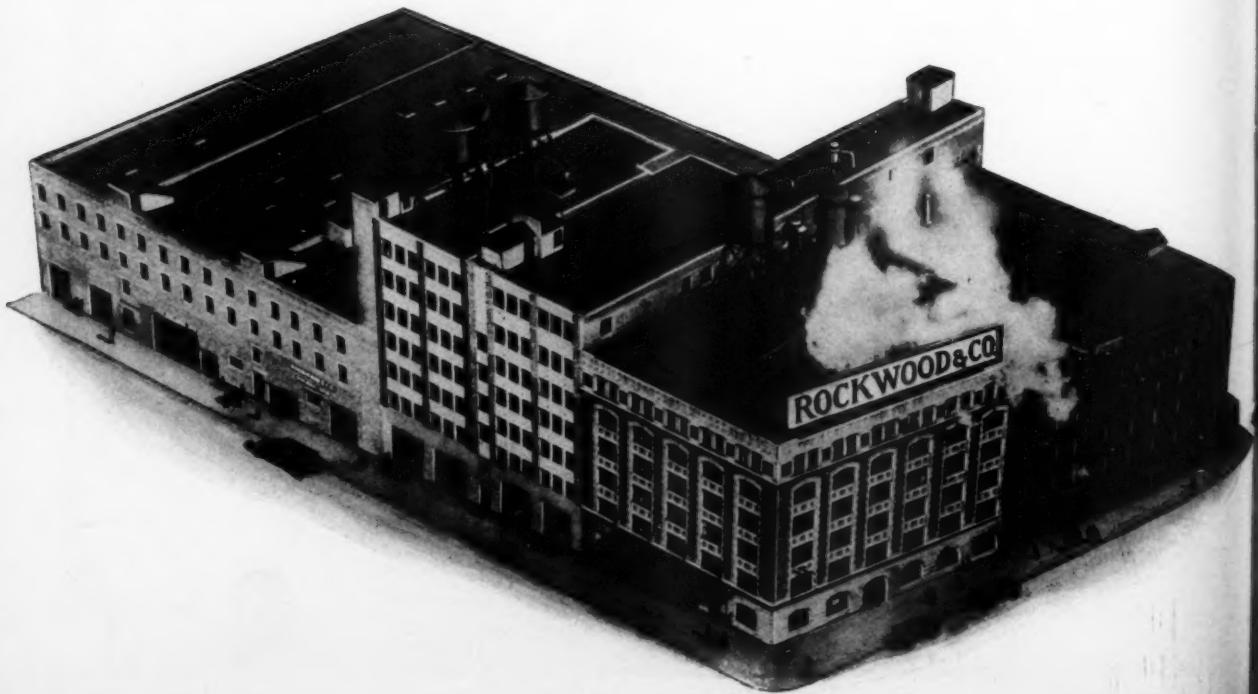
Rockwood & Co.

BROOKLYN, N. Y.

BOSTON

LOS ANGELES

CHICAGO



PURE FRUIT EXTRACtIONS

will flavor marshmallows in a new, delicious way and make a brand new confection that *sells*.

Our products listed below are especially made for marshmallow use:

PURE FRUIT EXTRACtIONS FOR MARSHMALLows

	\$ 7.50 gal.	Use 6 oz. to 100 lbs. Marshmallows
Strawberry.....	7.50 "	" " " " "
Grape	7.50 "	" " " " "
Cherry	7.50 "	" " " " "
Pineapple	8.00 "	" " " " "
Peach	8.00 "	" " " " "
Raspberry	8.00 "	" " " " "
Lemon	10.00 "	" 2 oz. " " "
Lime	17.00 "	" " " " "
Orange	15.00 "	" " " " "

Try these out yourself. They should prove to be big sellers for you.

Send for the quantity sufficient for you to try out satisfactorily

van Ameringen-Haebler, Inc.
Aromatic Essentials

315 FOURTH AVENUE, NEW YORK

180 North Wacker Drive, Chicago
619 Clark Avenue, St. Louis
42 Wellington St., East, Toronto

All true fruit flavors made in our own factory—417 Rosehill Place, Elizabeth, N. J.

WHEN cross-country flights were beyond the wildest dreams of aviation-



ISOLATE
Gummed for Strength, Quality and
Convenience in Confectionery Forms

—THEN, your product might have ridden to popularity on FLAVOR standards now outworn

But Not Today!

It's a far cry from the Kitty Hawk to the Ford Tri-Motored Plane. And it's an equally remote call from the first days of crude flavor-making to the present highly developed scientific methods that determine flavor quality and adaptability.

During the half-century of its existence the house of F & J has pioneered several important developments and kept well in the forefront of scientific flavor advance. It has given the best of its time, facilities and skill to the task of putting flavor-making on a strictly scientific basis. It has led the field in the adoption of highest quality standards; the development of better, more efficient production processes; the origination of scientific methods of determining the adaptability of its complete line of flavors to the various grades and types of candy.

That is why leading confectioners look to F & J for flavors that really fit their requirements. They know that there is nothing haphazard about the F & J method of determining the flavor that will do the job better, at lower costs, and with ideal flavoring results in the finished product.

Utilize the advantages of selecting your flavor requirements on the modern, scientific basis. Look to F & J for results that are guaranteed to satisfy. Our recommendations will not obligate you in any way.

The F & J organization is pledged to a program of service in behalf of the candy industry, of which it is an important part. It seeks to make the results of its research work; the advantages of its facilities; and the benefits of its nearly half-century of accumulated experience in solving flavor problems, available to those who acknowledge that candy is only as appealing as its flavor.

FOOTE & JENKS
JACKSON, MICHIGAN

Foote & Jenks
FLAVORS
•A Flavor for Every Use

... Protect your product against this

THE ANNUAL LOSS DUE TO
SUMMER SPOILAGE CAN
BE PROFITABLY AVOIDED



SUMMER operation with unavoidable waste and spoilage or summer shut-down with complete stoppage of production. To the manufacturer whose plant is at the mercy of weather, this is a difficult choice for either course must result in serious loss. Coolaireco equipped plants, independent of outside weather, are not concerned with the problem. They can operate throughout the summer, maintaining regular production, sales and uniform quality of products. They have a tremendous advantage annually worth many times the cost of the COOLAIRCO equipment that provides the advantage. Install COOLAIRCO air conditioning as an investment in extra business and a source of savings for your plant this summer. Utilize our engineering advisory service now. Protect your product and profits.



Eliminate Losses From

Waste due to molds and rancidity resulting from damaging organisms in plant air.

Excessive evaporation of dipping solutions.

Cost of "seconds" that quickly lose their rich color.

Sticky dust clogging machines making shutdowns necessary.

Rapid deterioration in storage.

Breaks in production schedule and delays in delivery shipments.

Let us explain the method and advantages of COOLAIRCO scientific conditioning for Cream, Dipping, Crystallizing and Hard Candy Departments—Cooling Tunnels, Storage and Packing Rooms.

THE COOLING & AIR CONDITIONING CORP.

11 West 42nd Street, New York, N. Y.

CHICAGO

CLEVELAND

PHILADELPHIA

LOS ANGELES



Tight-seal Wrapping

with moisture-proof Cellophane

Moisture-proof Cellophane can now be wrapped as air-tight as waxed paper, giving equal protection to the goods, and

decided sales advantages!

Now you can have *all* the sales advantages of a completely transparent wrapping, *plus* the air-tight, moisture-proof protection formerly obtainable only with waxed paper.

The Package Machinery Company, backed by wide experience in working with Cellophane, can now supply machines to wrap moisture-proof Cellophane as air-tight as waxed paper.

Moisture-proof Cellophane, being perfectly transparent, gives much more effective display to the package or product than waxed paper. Its glistening surface does not become clouded with dust . . . goods wrapped in it are always fresh in appearance; never shop-worn.

Tests show that moisture-proof Cellophane, wrapped by the *Tight-seal* method, helps to retain flavor and fragrance

more effectively than either waxed paper or foil.

This new development offers a real opportunity to that large field of manufacturers whose products must be kept fresh and wholesome . . . an opportunity to secure, in addition to perfect protection, a new and powerful sales-appeal through richer, more attractive appearance.

Send Us Your Product

We will return it to you, in a *Tight-seal* moisture-proof Cellophane wrapping with complete information regarding the machinery to do the work.

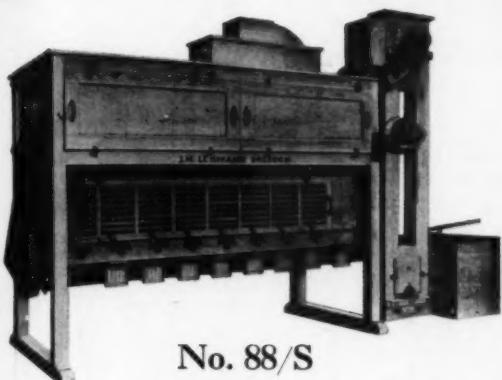
PACKAGE MACHINERY COMPANY

Springfield, Massachusetts
NEW YORK CHICAGO LOS ANGELES
LONDON: Baker Perkins, Ltd.

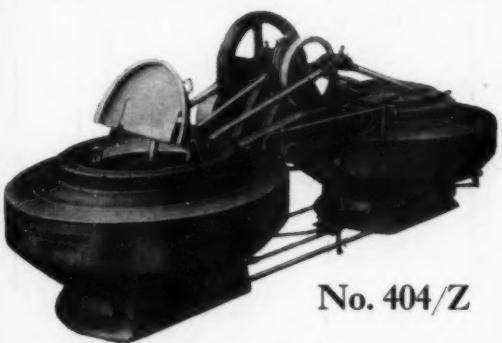


PACKAGE MACHINERY COMPANY

Over 150 Million Packages per day are wrapped on our Machines

**No. 88/S****"LEHMANN" CRACKER AND FANNER**

In various sizes ranging in output from 500 to 5,000 lbs. per hour.

**No. 404/Z****ROUND TANK CONCHE**

Total capacity 4,400 lbs. Great saving in space, power and conching time.

As "Sterling" is to silver, so the name "Lehmann" is to chocolate machinery. That name represents a guarantee of merit and excellence unsurpassed. Nearly a century of service stands behind it.

Next time you have a problem in chocolate production, let Lehmann experts consult with you.

J. M. LEHMANN CO., INC.

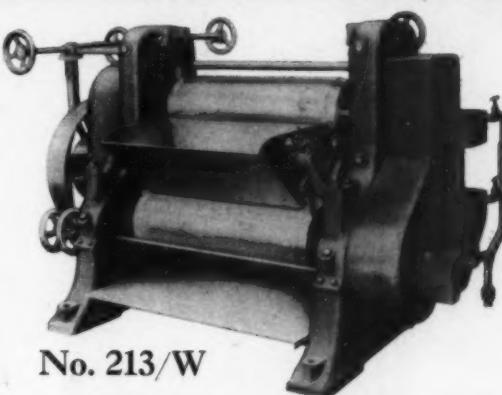
CHOCOLATE, CONFECTIONERY AND COCOA
MACHINERY OF EVERY DESCRIPTION
Established 1834

GENERAL OFFICES:
248 W. BROADWAY
NEW YORK, N. Y.

FACTORY:
LYNDHURST,
NEW JERSEY

LEHMANN

CERTIFIED EFFICIENCY IN CHOCOLATE EQUIPMENT

**No. 213/W****ROLLER BEARING TYPE HIGH PRODUCTION
THREE ROLL REFINER**

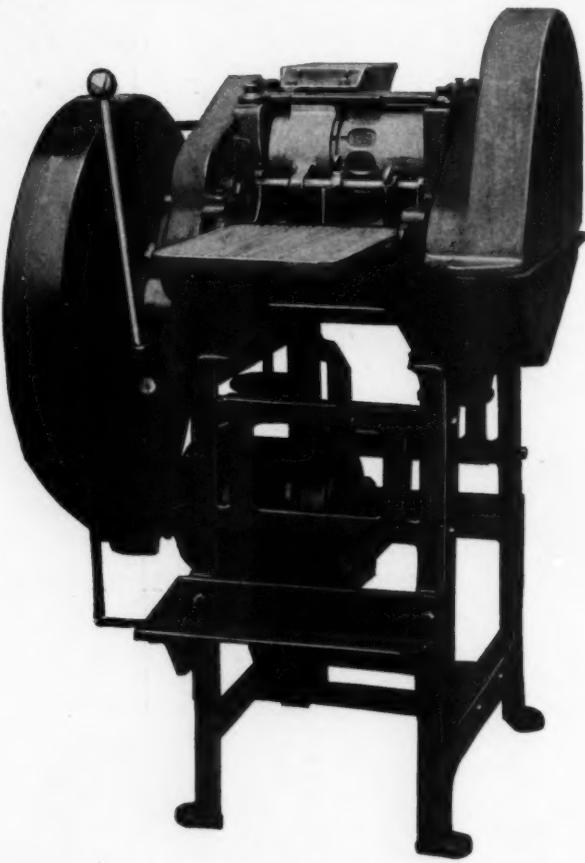
Especially constructed for finishing liquid chocolate. Also suitable for grinding chocolate of any consistency as well as cold blocks.

**No. 313/UM****MOULDING MACHINE**

With automatic temperature control.
Adjustable to various sizes of moulds.



Racine Automatic Sucker Machine (PATENTED)

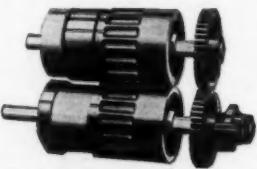


This is the machine that made the "all day sucker" the most popular form of hard candy in America.

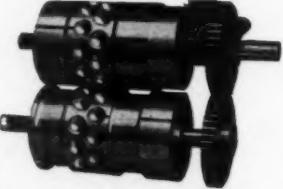
The latest model pictured above represents years of gradual development and because of the variety of its products it is practically a complete hard goods equipment in itself.

It is supplied with pulley for belt drive or with motor direct connected as illustrated. The length of conveyor is optional but 24 feet with air tunnel and motor driven blower is the accepted standard.

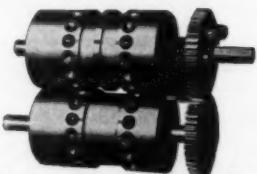
Note the variety of products made by these interchangeable rolls.



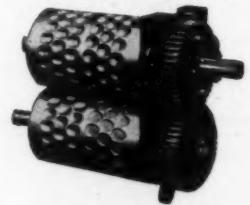
STANDARD SUCKER ROLLS
Candy on one end of the stick



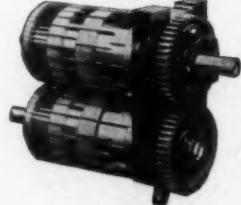
DUPLEX SUCKER ROLLS
Two suckers at a time



DUMBBELL SUCKER ROLLS
Candy on both ends of stick



DROP ROLLS
Engraved as desired



CUTTING ROLLS
Waffles and Satin Finish Goods

RACINE CONFECTIONERS' MACHINERY COMPANY
RACINE, WISCONSIN, U. S. A.

As simple as

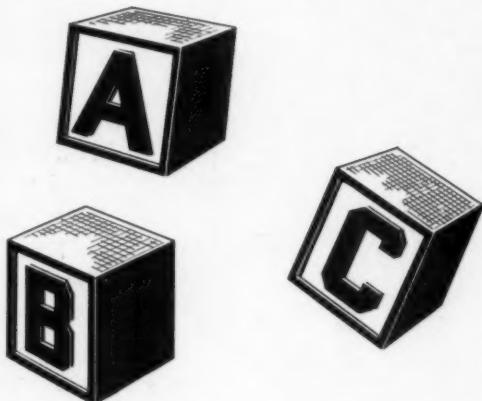


Photo by H. Armstrong Roberts.

Install the Hersey Starch Conditioner and you will have the most *simple* method known for correctly conditioning starch. The Hersey Starch Conditioner is not a complicated collection of individual units and conveyors. It is a completely unified piece of equipment that synchronizes the cleaning, drying, and cooling into a single simple operation. It takes the dirty, lumpy, sticky starch from the Mogul and returns it again, clean, cool, dry and fluffy.

There's nothing to get out of order in the Hersey Starch Conditioner. Proper temperature control is simplified because it is completely automatic. Correct engineering design has done away with the nuisance of scraping cooling tubes. The Hersey Dust Arrester efficiently takes care of the dust problem by eliminating it.

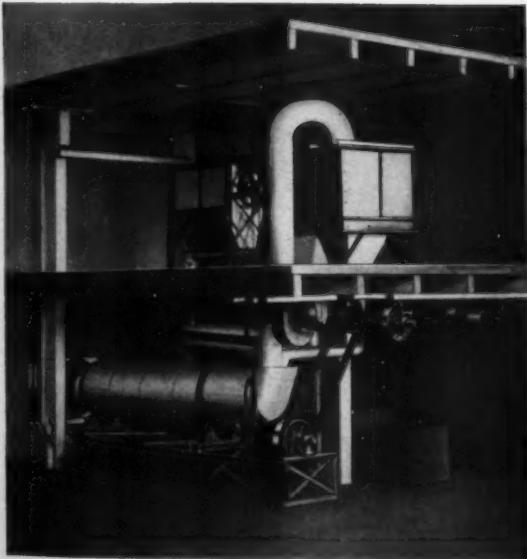
Many confectionery manufacturers have cut their costs by installing the Hersey Starch Conditioner. You can do the same. Just write us and we will send you complete information. Expert engineering service is maintained at no cost or obligation to you. Write us now.

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Large Power
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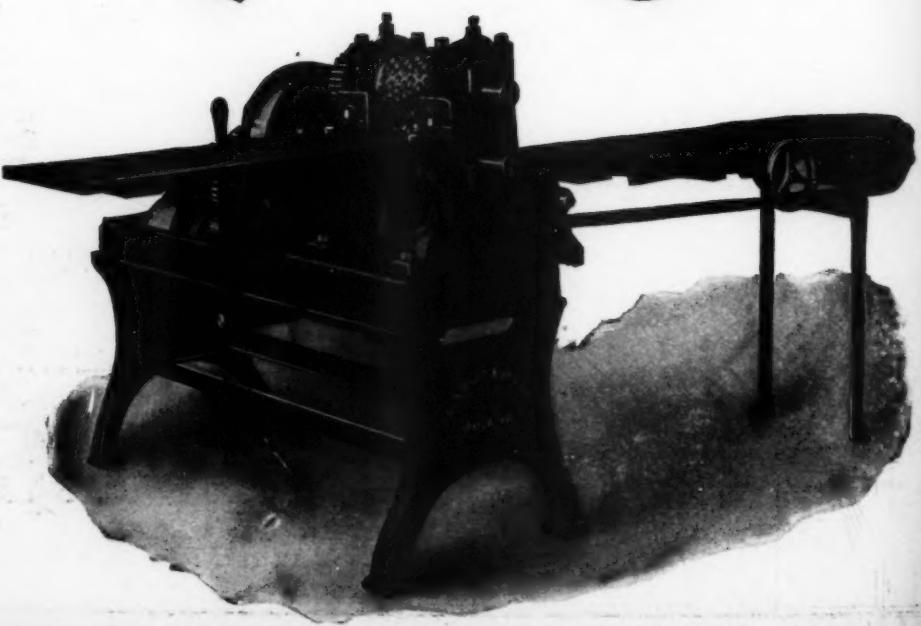
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See that your Foils are Fisher's! Rely on finer quality, better service at no more cost than you're paying now.

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"We have today received the Foil ordered and would like to reiterate our appreciation of the way you have executed the order, especially the little time taken for delivery."

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SEVEN Special features of FISHER'S PACKING MACHINES

- ① Saves cost of bag making
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COLORFUL MINTS

*that ATTRACT the eye
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THE THOMAS D. RICHARDSON COMPANY wanted to see their colored mints on candy counters everywhere. And they wanted the freshness of these mints protected from atmospheric changes. Moistureproof Cellophane was chosen as the logical wrap...not only to *protect* the mints but to *sell* them.

Cellophane assures keeping candy products in front of customers' eyes. It earns them the best positions on candy counters. If your merchandise is not already wrapped in Cellophane—investigate this transparent, protective material.

And in considering a *new* candy unit—remember that our packaging experts think in terms of your market and *increased sales* when designing Cellophane packages. Let them help you. Du Pont Cellophane Co., Inc., 2 Park Avenue, New York City.



Cellophane

Cellophane is the registered trademark of the Du Pont Cellophane Company, Inc., to designate its transparent cellulose sheeting

Moistureproof Cellophane protects these mints from dust, handling and atmospheric conditions while displayed on retailers' counters. Being transparent, Cellophane shows all the candy's deliciousness to passers-by...and speeds up sales.



Use *Tycos* Index Thermometers on Your Chocolate Enrobers for Better Candies



This photograph shows Tycos Index Thermometers on Chocolate Enrobers with bulbs in the Chocolate Pan. Tycos Complete System of Temperature Control is also available for this application.



The Tycos Index Thermometer. It has a 7" dial and for the Enrober application a range of 0° to 160° F.

TYCOS Index Thermometers on Chocolate Enrobers with their bulbs in the chocolate pans show the actual temperature of the chocolate just before it is applied to the candy.

They enable operators to watch and control temperature so that the chocolate is always just right . . . thick enough to cover nicely and not run off, thin enough to flow evenly and give the desired coating.

Tycos Index Thermometers are as easy to read as steam gauges and can be seen from a considerable distance. They are ideal for Chocolate Mixers and Cooking Kettles as well as Enrobers. Call or write the nearest office for full information and prices.

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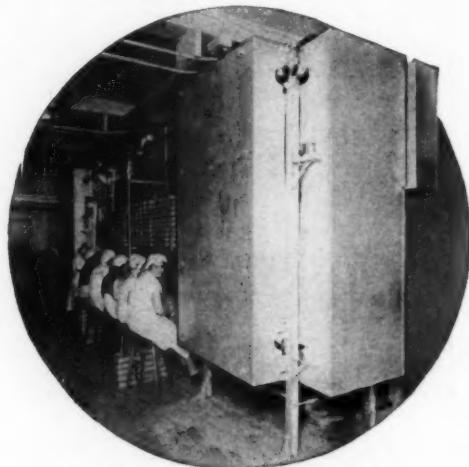
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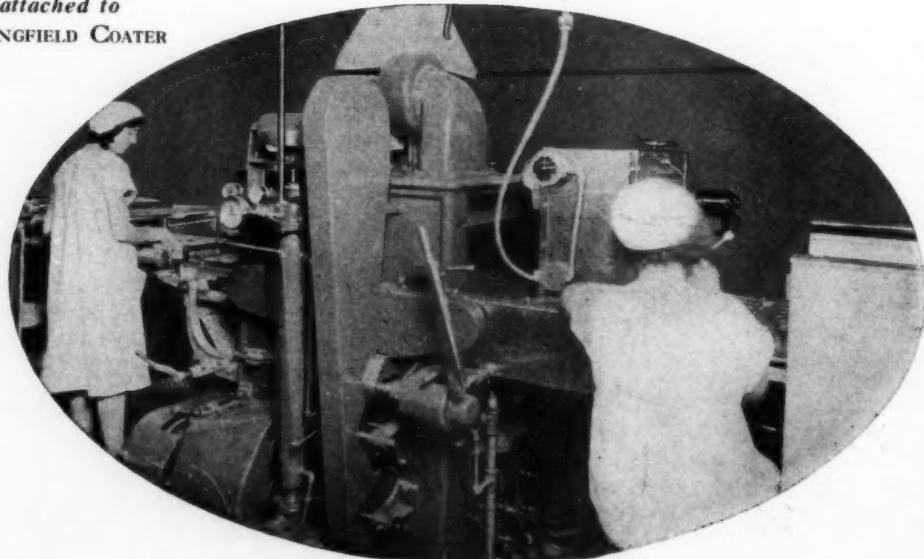
**The SPRINGFIELD COATER
With Detailer and
Temperature Control**

Progressive M



**Automatic SCHRAFFT SYSTEM
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**BAUSMAN DECORATOR
attached to
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alive Manufacturer!

Goldenberg's Peanut Chews

A Quality Product, successfully merchandised, with a growing business

This manufacturer, alive to greater sales by offering more quality at less cost, and being cramped for room which prevented any increase in production, making his manufacturing uneconomical—called in a NATIONAL ENGINEER.

and so

Two sixteen-inch Enrobers were replaced by a 24-inch Springfield Coater with Automatic Temperature Control and Detailer—and short Cooling Tunnels were replaced by a 24-inch 1931 automatic Schrafft system for Cooling. A 24-inch Bausman spindle decorator gave his candy a beautiful marking instead of the inequalities of the old unhygienic hand method.

Result—

120 feet of cooling surface; 20 feet of packing space; a quality product with catching eye-appeal.

A reduction in costs to talk about, and production capacity to fill orders economically when required.

Here is a service that you may be assured of from National Engineers.

The SPRINGFIELD COATER has:

Automatic Control of chocolate temperature, assuring a uniform thickness of coating.

Mechanical Detailing Device—all pieces are uniform in shape without "feet" or distorted bottoms.

High speed—Automatic Decoration—Constant production assured.

All NATIONALS are:

Mechanically perfect; rugged in construction; attractive in their compactness; sanitary and hygienic.

The AUTOMATIC SCHRAFFT SYSTEM has:

Automatic Delivery from Enrober or Coater to cooling towers.

Four times the cooling space of a tunnel of the same length.

Five times the cooling time of a tunnel of the same length.



There is a National Machine for every candy-making purpose

All manufacturers use good materials but some handicap themselves by employing poor industrial methods or obsolete and unscientifically designed machinery.

NATIONAL machines are the machines of today. There is no reason why you should not consult a National Engineer right now. His counsel is valuable, because it is experience gained from a broad contact with the whole industry. His contacts with you are confidential and create no obligation.

Ask for a National Engineer

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Editorial

Can the Candy Industry Be "Ford-ized"?

IN current issues of English trade journals we note accounts of a very interesting effort to reduce candy manufacturing costs to the lowest possible minimum. Jamesons Chocolates, Ltd., has recently erected a factory at Tottenham, England, which has been designed to produce chocolate candies by a continuous process on a mass production basis that will permit an extraordinarily low production cost.

The factory is so laid out that all processes, including manufacture of chocolate coating, proceed without interruption from raw materials to finished products. Machinery and equipment of the most recent types have been installed and the factory as a whole apparently represents a supreme effort to take advantage of all existing inventions and advances in knowledge to cut costs to the bone.

Chocolate candy representing a wide variety of lines is to be produced and each line is to sell to the consumer at a shilling per pound. The candy is to be packed attractively, mostly in 4-lb. display boxes, and is to be sold at such prices as to allow a sufficient margin of profit both to wholesalers and retailers. The manufacturers believe that the price is so low as to effectively checkmate competitive price cutting. The entire enterprise is based on a policy of mass production and in order to make a profit a certain minimum turnover per week is required.

Mass production in the United States, the land of its origin, can hardly be said to have been *uniformly* successful as applied to candy. One of the lessons to be learned

from the business depression from which we are just beginning to emerge is that, while mass production is undoubtedly effective in reducing unit production costs, it is not a panacea for all industrial ills. Because of the fact that mass production requires a greater and greater volume of sales in order to attain its highest efficiency, it is necessary to guard with incessant watchfulness against overproduction and its attendant evils of price cutting, and "profitless prosperity."

Mass production has its place and this place is undoubtedly an important one. However, it is by no means the only answer to the problem of building up and maintaining a profitable candy manufacturing business, as has been amply demonstrated by the success of many producers of so-called "home-made" candy. Mass production needs to be supplemented by that elusive and subtle something which is variously called "individuality," "quality" or "style" and which marks the difference between the ordinary and the unique. This difference may relate to the packaging and details of merchandising as well as to the product itself. Since mass production necessarily implies a considerable degree of standardization, it might seem that it is incompatible with individuality. However, we believe that a number of domestic candy manufacturers have demonstrated that this is not necessarily the case.

Mass production, as applied by Henry Ford, its principal exponent, has resulted in improved quality, as well as greater quantitative value to the consumer. On the other hand, mass production in some

THE MANUFACTURING CONFECTIONER

cases has resulted in a vicious circle of overproduction, price-cutting, diminished margin of profit and reduction in quality. The net result to the consumer is that *quality* has been replaced by *quantity*, very often to his dissatisfaction.

The recent experience of the jam, jelly and preserve industry is exceedingly interesting and instructive. As a result of intense competition, price-cutting, reduction in quality and substitution of pectin for fruit, the quality of commercial jams and jellies had been so degraded that the public was rapidly losing confidence in these

products. The leaders of the industry, recognizing the danger in this situation, undertook constructive measures and the industry as a whole is now committed to a program that insures progress and maintenance of public confidence.

We trust that this editorial chat will not be misinterpreted. We believe that mass production has its place in the candy industry, but likewise believe that its operation must be safeguarded by certain precautions in order to forestall disastrous consequences.

Credit Extension Practices Go Under the Microscope

HAVE you ever been aroused from the depths of slumber by the none-too pleasant expedient of having a wet towel dashed in your face? If you have, you know the effect—once recovered from the initial shock your entire being is alive and alert. The usual after-sluggishness of a normal awakening is absent.

Business has had just such an awakening—as a result it has become more inclined to self-analysis; more conscious of its shortcomings. Among the defects it has discovered, is the appalling laxity of its credit extension methods and practices. When the final diagnosis has been completed and a general summing up of its ills made, credit methods will very likely rank high up on its list of ailments.

In an endeavor to make its diagnosis complete, business in the guise of the Na-

tional Association of Credit Men has enlisted the services of the U. S. Department of Commerce. Under the guidance of Mr. Wm. L. Cooper, Director of the Bureau of Foreign and Domestic Commerce, a nationwide survey of mercantile credit extension practices and policies will be inaugurated. Every kind of business will come under its scrutiny—from that having to do with the production of agricultural implements to the manufacture of women's wear. Every phase of the wholesaler's dealings with the retailer will be gone into. Questionnaires are being sent out, which when analyzed and recorded should prove a powerful ally to the proponents of Better Business.

When *your* questionnaire arrives fill it in and return it to the Survey Committee promptly. The candy industry *needs* the benefit of this survey, and we might add, in the vernacular—and HOW!

Management Speaks

EARLY last month the American Management Association met at Niagara Falls, N. Y., and discussed the problems and functions of management from many different angles. While space does not permit even a resumé of the many inspiring messages brought to that meeting by management specialists from all parts of the country, we cannot refrain from quoting one or two of the speakers.

Mr. William J. Graham, President of the Association and Vice-President of the Equitable Life Assurance Society, spoke of management's responsibilities to the public and to the consumer. But—"right management cannot continue right except in the support of right products. Right products cannot be recognized for their merits without a right order of exploitation, ad-

(Continued on page 52)

The Technic of Experimental Candy Batch Manufacture



THE practical candy maker who undertakes to make experimental batches finds quickly that

it is necessary that he possess a knowledge of the role played by the various ingredients used, i. e., their effect on each other while the batch is being made, and their influence on the keeping qualities, flavor, and appearance of the candy. For example, should corn sirup be considered a preventer or retarder of crystallization, a bulk producer, moisture retainer or a stabilizing agent, alone or in combination? Only when the physical and chemical characteristics of the ingredients are understood is it possible to predict approximately what kind of product will be obtained. This knowledge is possessed to a certain extent by the studious candy maker, but it can be enlarged as never before by studying the articles written by practical and technical experts and published in trade journals.

By JOHN HAMILTON
*Carbohydrate Division, Bureau of Chemistry & Soils,
U. S. Department of Agriculture*

Practical Man Plus the Scientific Adviser

For really efficient experimental work, however, the ideal combination is the practical candy maker plus the qualified scientist or chemist. It is reasonable to expect the scientific adviser to be best qualified to explain and forecast intelligently the behavior of the many new materials offered for the use of the industry, as well as that of the old and more familiar materials, to translate preliminary results into more profitable experiments, and, in general, to avoid much needless waste of time and materials.

Equipment Required

It is of course impractical to make

experimental batches of a few pounds with factory equipment. The experimental laboratory should, therefore, have equipment proportionate

to the size of batches contemplated, for example, a small tilting steam kettle of about 8 quarts capacity equipped with double action stirrer geared for two speeds, with hot and cold water in addition to steam, and possibly with an armored thermometer in the line between the kettle and the steam and water inlet to insure good control of the temperature of the jacket. Small vacuum pans, revolving pans and beating or whipping machines are not difficult to obtain, and, if desired, a small continuous cooker can be procured. Some of these items may have to be made to order, but equipment makers would no doubt keep these prices in stock if the demand warranted it. A starch-drying room or a cabinet, holding a dozen or so regular starch boards,

THE MANUFACTURING CONFECTIONER

and having controlled temperature and circulating air, will be of value. The other necessary utensils or tools can be easily obtained. With an experimental laboratory so equipped, the candy maker can go the limit in experimentation, since he feels at liberty to exercise more latitude with ideas and "hunches" than he would if forced to experiment with the large batches required in using the regular factory equipment.

In addition to the equipment mentioned above, there are the more or less indispensable pieces of apparatus for interpreting results with some degree of exactitude, such as the "fondant press" (described in a previous article*) used for separating the sirup from the crystals in fondant, and the refractometer for quickly ascertaining the percentage of solids, in such sirups. An accurate analytical balance for weighing sample is indispensable. The work also calls for a gradual accumulation of apparatus whenever possible, such as a polaroscope and a pH outfit. These come under the domain of the scientist or chemist who should be, if not a permanent, at least a consultant, member of the personnel of the laboratory.

Since excessive humidity is one of candy's worst foes, it is necessary that some exact method be employed to determine how the candy will behave when exposed to varying degrees of humidity. This is possible by using glass desiccators in the upper portions of which the candy samples are placed and in the bottoms of which are placed solutions of sulphuric acid of such specific gravities as will produce the degrees of humidity desired. It is then an easy matter to make periodical observations to note the appearance of the samples. If they are stored in tared aluminum dishes, loss or gain in weight is also easily ascertained. Desiccators to be used in these experiments should be prepared by the chemist.

Control of Variables in Experimentation

A common error in experimental work is to vary more than one fac-

tor at a time in the experiment, such as, for example, altering the proportion of one of the ingredients from that used in a preceding batch and at the same time either increasing or decreasing the cooking temperature. When two such changes are made together, it is obvious that any difference in the resultant product from that of preceding batches cannot with certainty be attributed either to the alteration in the proportion of the ingredient or to the change in cooking temperature; consequently guess work takes the place of exact knowledge. Therefore, in order to avoid uncertainty and confusion when interpreting results, as well as to promote efficiency in the performance of the work, a comprehensive outline of the proposed experiment, embracing all reasonable

ods used in packing and storing the candy when studying the influence of climatic conditions. The containers for the samples, and methods of packing and storage under desired climatic conditions should be as uniform as possible so that the results obtained will be comparable. In this way when the samples are withdrawn for examination it will be a comparatively simple matter to determine what particular factor is responsible for the results obtained.

Careful Detailed Record of Work Performed

It is hardly possible to record too many details concerning each experiment. Not only must the proportion and quality of the ingredients be recorded, but also the cooking and climatic conditions, particulars of manipulation, packing, storage, etc., so that if desired in the future (near or distant) any promising product can be exactly duplicated or varied to suit. When examining a product at stated intervals to ascertain its condition, considerable ingenuity is required to describe the condition of the goods examined. As considerable time may elapse between the making of the product and the final verdict of its value, the terms used for descriptive purposes should be

rigidly adhered to, so that the condition of the samples can be visualized. In some cases the appearance and condition of the samples are best depicted by means of photographs, and these, if accompanied by a carefully written description, constitute a record which is immediately intelligible without recourse to one's memory.

Broad Viewpoint Regarding Results of Experiments

The experimenter must be prepared to view with equanimity the results of many of his experiments. His pride in craftsmanship constantly tempts him to sidestep experiments that experience tells him will discredit his ability, but his power to resist this temptation marks his suitability as an experimenter. Right here is where the scientific adviser



Only one factor should be varied in any single test. Strict adherence to this rule is the only sure way of obtaining exact and definite information.

varyiations, should be drawn up in advance. Then only one factor, such as proportion of sugar used, the cooking temperature, or any one of the other variations considered in the outline, should be varied in any one test. By a strict adherence to this rule, such exact and definite information is obtained regarding the influence of the variations made that guess work is eliminated and much repeat work is avoided. If any change in the composition of the batch is already under way, even the handling or manipulation of the batch, must be carefully controlled, especially with hard candy, no variation in the manner of introducing color or flavor, kneading, pulling, etc., being permissible.

Of equal importance with the manufacturing process are the meth-

TECHNIQUE OF EXPERIMENTAL BATCH



Left: Too many details of each experiment cannot be recorded. The slightest variation in proportion and quality of ingredients, cooking and climatic conditions should be noted, as also, particulars of manipulation, packing, storage, etc.

and who are explaining the whys and wherefores, making clear the many chemical reactions and physical changes which occur during the manufacture of each batch of candy.

* Paine, Birckner and Hamilton, Mfg. Conf., 7, No. 10, 28-33, 36-39, 53 (1927).

is invaluable, who, being untrammeled with the traditions and practices of the industry, may suggest ideas that more than likely would "die a-borning" in the practical man's brain. Of course, many ideas and "hunches" turn out to be "flops," yet at the same time some information is obtained which may be used in the future, and a wild idea may turn out to be as much of a success as that of coating ice cream with chocolate.

Keeping Up-to-Date

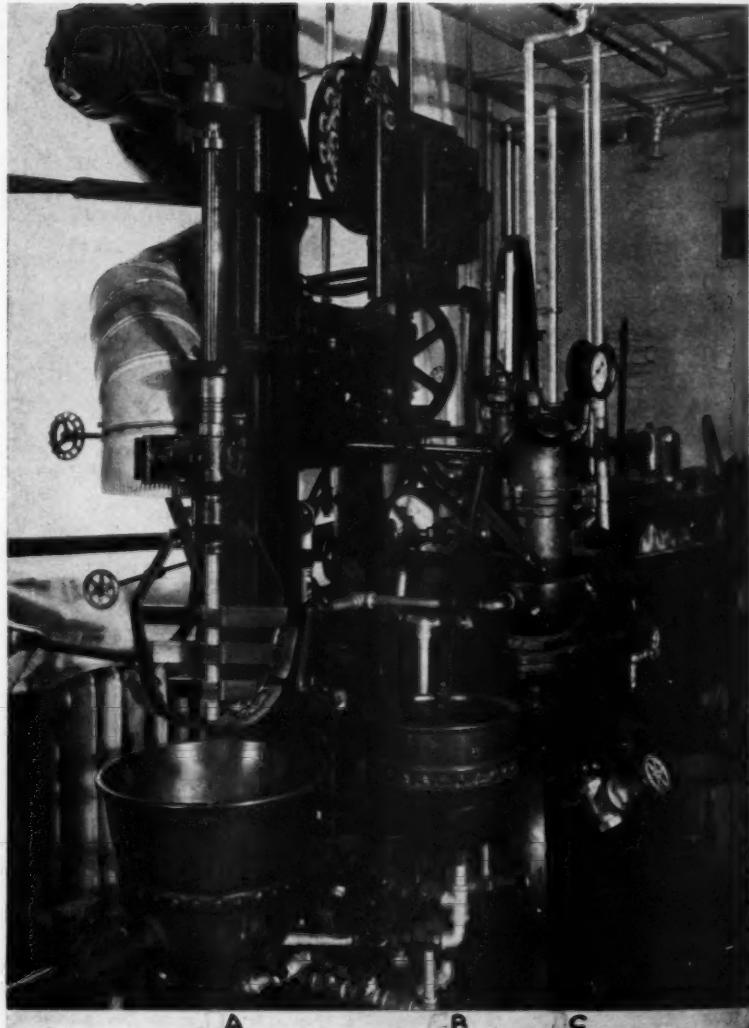
The alert experimenter must take advantage of the vast amount of information relative to new developments in technic and equipment, and in raw materials and their possible uses, which is available through the medium of the trade journals. Collecting and filing all such data, and studying the thoughts and observations of the writers connected with the industry, is equivalent to "sitting in" with the men who "know why."

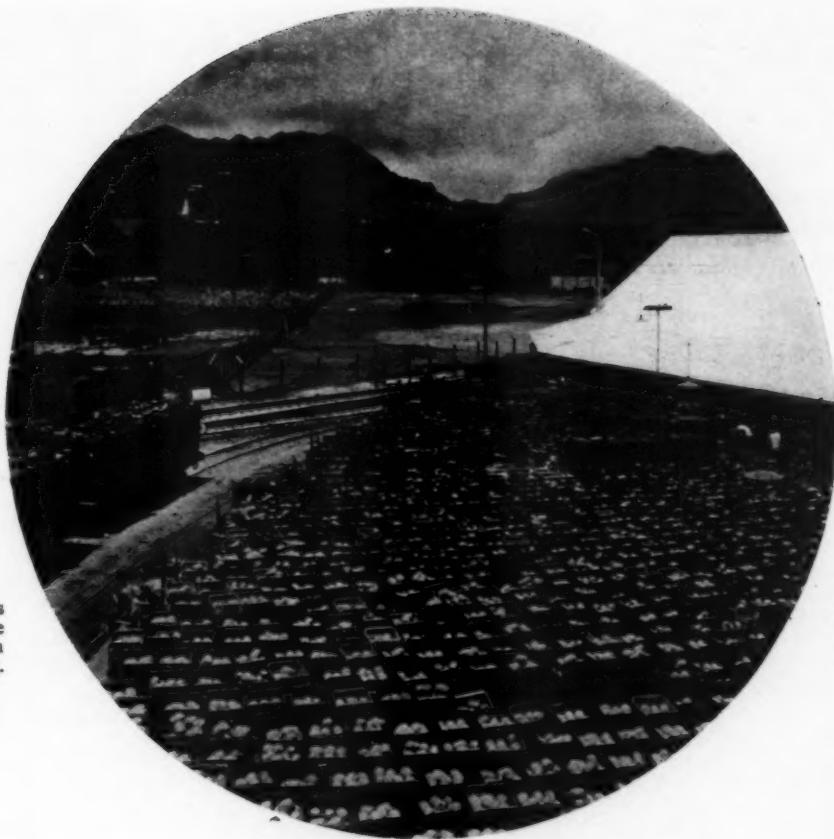
Right: It is impractical to make experimental batches of a few pounds with regular factory equipment. Equipment should be proportionate to the size of the batches contemplated. The illustration shows:

A—Opposite-motion jacketed stirring kettle of about 8 quarts capacity.

B—Steam jacketed kettle.

C—Small vacuum pan.





Pineapples — tons of them — on the receiving platform prior to canning.

Excellent jelly centers can be made from the juice of these luscious fruits.

Fruit Candies

Part 1. *The Place of Fruits in the Diet*

By W. V. CRUESS

Fruit Products Laboratory, University of California

THE modern trend in foods is toward the more generous use of fruits and vegetables in the diet. Their increasing popularity and more general use has been brought about by increasing knowledge of their peculiar nutritional value. At one time it was thought that a properly balanced menu need only contain the proper proportions and amounts of protein, carbohydrates, fats and mineral constituents. Then came the relatively recent epoch-making discoveries of biochemists concerning the various vitamins. Every mother of young children now knows that orange juice or tomato juice or other products rich in Vitamin "C" is required



The Author

by children; that they also should receive vitamins "A" and "B," contained in green vegetables such as spinach, green peas and string beans and that they must have the so-called "sun-shine" Vitamin "D." All of these are necessary in order that children shall grow normally and be resistant to disease. Vitamin "B" has recently been subdivided into three fractions known as "B" (appetite producing) and "F" (anti-neuritic and anti-beri beri) and "G" (anti-pellagraic). Beri beri is a disease prevalent among people who subsist almost wholly on polished rice; pellagra is found in the Southern States among those who live on restricted diets.

Vitamin "C" is the most impor-

FRUIT CANDIES

tant and best known of the vitamins found in fruits. It is the anti-scorbutic (anti-scurvy) vitamin. Naturally, while few children or adults show active symptoms of scurvy, nevertheless, lack of vitamin "C" affects the health very adversely.

Fruits Add to Body's Alkaline Reserve

Perhaps of greater value than their vitamins is the alkaline ash content of fruits. Meat, bread, eggs and cereals tend to produce an "acid" condition in the body. The blood is always slightly alkaline; we would die if it actually became acid; nevertheless, its "alkaline reserve" consisting largely of bicarbonates of sodium and potassium is reduced materially by the use of a diet containing too little of the alkaline ash foods such as fruits and vegetables. It appears to be well demonstrated that an "acid" condition in the body lowers resistance to infection; par-



Canned peaches are suitable for use in candy. This view shows a portion of Libby's up-to-date canning plant in Sacramento, California.



Courtesy Berger & Carter Co.
Harvesting prunes in California for drying. Prunes to be canned after drying should not be allowed to remain on the ground for a long period of time.

ticularly to influenza. Hence, the well known and widespread use of lemon juice, oranges and grapefruit in combatting colds and "flu."

One of the "strong talking points" for oranges is that they maintain the alkaline reserve of the body, and counteract "acidosis." Our ailments appear to run in cycles. At one time it was appendicitis; at another, too much tonsils and adenoids; recently, troubles caused by lack of vitamins and at present, it is acidosis and

what to do about it. All levity aside, acidosis is a serious problem.

The relative acidity and alkalinity of various important foods is shown in the following table:

"Alkalinity" or "Acidity" of Several Common Foods¹

(Expressed in number of c.c. of Normal acid or alkali required to neutralize the ash from 100 grams of the food.)

Class I. "Acid" Foods

Food—	Acidity of Ash
1. Bread	7.1
2. Wholewheat bread	7.3
3. Eggs	11.10
4. Fish (haddock).....	16.07
5. Meat (lean beef).....	13.91
6. Meat (chicken).....	17.01
7. Oysters	30.00
8. Oatmeal	12.93
9. Peanuts	3.90
10. Rice	8.10

Class II. "Alkaline" Foods

Food—	Alkalinity of Ash
Almonds	12.38
Apples	3.76
Bananas	5.56
Beans, dried lima.....	41.65
Beets	10.86
Cabbages	4.34
Carrots	10.82
Lemons	5.45
Lettuce	7.37
Milk (cow's)	2.37
Oranges	5.61
Potatoes	7.19
Raisins	23.68
Peaches (fresh)	5.04

¹After W. D. Sansum. *The Normal Diet*. An interesting and useful book published by C. V. Mosby Publishing Company, St. Louis.

²Saywell, L. G. *An interesting Dietary Effect of Raisins*.—Fruits Products Journal, January, 1931.

THE MANUFACTURING CONFECTIONER

In recent experiments conducted in this laboratory by Saywell² it was found that raisins used in generous amounts in the diet rapidly counteract an acid condition induced by eating acid foods. The results were very striking and are in keeping with the analyses in Table I which show that raisins are higher in "alkalinity" than most other foods listed in the table.

"Alkalinity" requires further explanation, perhaps. In this connection it means this: When raisins or other fruit are eaten and digested, the fruit acid is "burned" in the body to carbon dioxide and water. There is left the mineral constituents in the form, in part, of alkaline bicarbonates of sodium and potassium and in part as soluble salts of other kinds such as phosphates, sulfates and chlorides. The reaction of these salts as a whole is alkaline; for raisins decidedly so, as proven by Saywell's experiments (conducted with a group of young men in normal health).

Fruits Enhance Dietary Value of Candy

All of which brings us to the statement that fruits are good for us because they contain the valuable properties of counteracting acidosis and providing essential vitamins. Furthermore, however, they also furnish "bulk" in the food and most fruits exert a mild "regulatory" or laxative action. Their sugar, for the most part invert sugar, is easily digested.

Fruits are palatable and we all like them for their pleasing flavor, if for nothing else.

When used in candy, fruits, therefore, do not represent "just something more to be added to candy," but something that very greatly enhances the dietary value of candy. Incidentally, they improve the eating quality of many candies. As will be shown later, fruits need not increase the cost of candy appreciably. In some cases, they actually decrease cost. Fruit candies of high quality command good prices; witness candied and glacé fruits. How-

ever, in this series of articles it will be our aim to emphasize products that can be produced with regular candy factory equipment and sold at prices within the reach of the general candy eating public. At present, fruits are low in price, abundant and readily obtained. The fruit industries and fruit products manufacturers such as canners and dried fruit packers are more than willing to meet the candy industry half way in developing the greater use of fruit in candy. Such a movement would probably have the support of those who advise us in respect to our diet, that is, our physicians and dietary specialists.

[Part II of this series will appear in the April issue of THE MANUFACTURING CONFECTIONER. In it, Professor Cruess will describe some of the laboratory and factory experiments on the utilization of fruits in candy made under his direction. Among the most promising were the fruit jellies. This will be the subject of his next installment in which he will give formulas, costs and other valuable and interesting data. In subsequent articles he will discuss "Dried Fruits in Candy" and "Candied and Glacé Fruits."—EDITOR.]

A Question of Law on an Exclusive Sales Agency Agreement

GHE United States Circuit Court of Appeals in the recent decision cited below had before it the relationship, and the rights and duties between a manufacturer and jobber of candy under a contract for the alleged exclusive distribution thereof within a stated territory.

The decision is suggestive of the legal requirements which should inhere in such agreements in order that they may be valid and enforceable. The gist of the case is represented by the following question and answer.

Question

A MANUFACTURER asked a jobber to undertake his distribution. The jobber replied that he would do so only if given exclusive distribution privileges. The manufacturer confirmed the arrangement for the exclusive distribution of his products in a stated county. No definite agreement was made requiring the manufacturer to sell or the jobber to buy any specific quantity, or

to maintain the relationship for any given time, or fixing prices, terms, etc. Nevertheless the manufacturer shipped his products to the jobber and the jobber distributed them for over a year.

The jobber discovered that the manufacturer was selling to other jobbers, and protested, insisting on the exclusive feature of the alleged contract.

The manufacturer replied by letter to the effect that no one jobber could give him the distribution to which he felt he was entitled. Therefore he must take orders from anyone, and could not give an exclusive contract.

After this, sales to the jobber continued for over a year; then the manufacturer did not sell to him any more.

What are the rights of the parties? Can the jobber insist on an exclusive agency because the arrangement started that way, and was in fact conducted that way for over a year?

Answer

THE court held with the manufacturer. The court pointed out that matters of quantity, type of merchandise, price and other terms were left undetermined, and that the negotiations resulted in a series of separate and independent sales each complete in itself. There undoubtedly was an expectation that the relationship would continue indefinitely, but the contract lacked that mutuality necessary to make it enforceable so far as the future executory obligation was concerned.

Moreover, the court continued, a marketing agreement of this kind being terminable at will, a notice of revocation of the exclusive feature would operate as an abrogation of the entire relationship and as a proposal to continue upon the new basis of an open market. The court was clear to the effect that the letter of the manufacturer to the jobber above referred to, would terminate any exclusive representation which might have existed.

WE are indebted to the Sugar Institute, Inc., for the following interesting bits of information about sugar, gleaned from the pages of ancient and modern history.

The Sugar Institute was formed several years ago for the purpose of promoting the interests of all elements of the cane sugar industry. It has recently been announced that the Mellon Institute of Industrial Research is cooperating with them in a program of research which may develop hitherto unsuspected non-food uses of sugar. Perhaps the most interesting chapter in the history of sugar is yet to be written.

* * *

India as the origin of sugar cane is indicated in Chinese writings of the Eighth Century, B. C. Later Chinese writings record that the kingdom of Funan paid tribute to China in the form of sugar cane. Three centuries before Christ it was recorded that the Macedonian soldiers of Alexander the Great carried sugar cane, described as the "honey-bearing reed", from the banks of the Indus River to their homes in Europe.

* * *

Ancient history records that sugar was highly esteemed as a medicine in the pharmacopoeia of Persian physicians, and also that crude processes for extracting the sweet from the cane were developed early in India and China. However, the Egyptians seem to have been the first to produce a refined sugar that was at all comparable with the commodity known as refined cane sugar today.

* * *

THE RELIGIOUS WARS OF MOHAMMED AND THE INVASIONS OF THE ARABS PLAYED IMPORTANT PARTS IN SPREADING THE KNOWLEDGE OF SUGAR THROUGH THE THEN CIVILIZED WORLD. THE CRUSADERS ACQUIRED A TASTE FOR SUGAR WHEN IN THE EAST AND WERE LOATH TO GIVE IT UP WHEN THEY RETURNED HOME. SOME OF THEM, IT SEEMS, GAVE UP CRUSADING, AND ENGAGED IN

Highlights in the History of Sugar



Although modern railroad cars are chiefly employed in Cuba to haul cane to the mills, in some sections the cane is still hauled by slow-moving oxen.

THE CULTIVATION OF SUGAR CANE IN ANTIOPH, SYRIA AND CYPRUS.

* * *

It is said that a quest for sugar was a factor in bringing about the exploration which resulted in the discovery of America by Christo-

pher Columbus. His first attempt to establish a sugar industry in Santo Domingo was unsuccessful, but the attempt finally developed in a large way.

* * *

In the reign of Louis XIV a violent debate occurred in France as to whether or not the whole of Canada should be ceded to England in order to retain the little isle of Guadalupe where sugar production was well under way. Napoleon was forced to adopt heroic measures to provide his armies and the French people with sugar during the belligerent years that marked his rule. In the last half of the Nineteenth Century the question of sugar bounties threatened to precipitate Europe into a great war. It was averted largely through concessions made by Great Britain.

* * *

During the Middle Ages, Venice became the chief sugar distributing center in Europe and it was there in the Fifteenth Century that a citizen received a reward of 100,000 crowns (\$112,000) for having invented a process for making loaf sugar.

* * *

It has already been indicated how the religious conquest of the Crusaders aided in extending the consumption and cultivation of sugar. Of further interest is the fact that a religious body was definitely responsible for introducing the cultivation of sugar cane into this country. In the face of discouragement, and even ridicule, Jesuit Fathers planted sugar cane in 1754 in what is now the business section of New Orleans.

* * *

By 1828 Louisiana was supplying most of the sugar consumed in the United States. The rapidly increasing demand for sugar eventually necessitated huge imports from tropical countries. In 1850 the annual per capita consumption of sugar in this country was twenty-three pounds. Eighty years later—today—finds the per capita consumption to have more than quadrupled, or to have reached approximately 109 pounds a year.

(Continued on page 47)

Courtesy, U. S. Dept. of Agriculture.

Dr. E. W. Brandes, government scientist, working with sugar cane being grown for experimental purposes in the U. S. Department of Agriculture greenhouses near Washington, D. C., where cane brought from many parts of the world is studied with the object of improving its hardiness and extractable sugar content.

MARCH 1931						
SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL 1931						
SUN	MON	TUE	WED	THU	FRI	SAT
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

The CANDY MAN'S CALENDAR

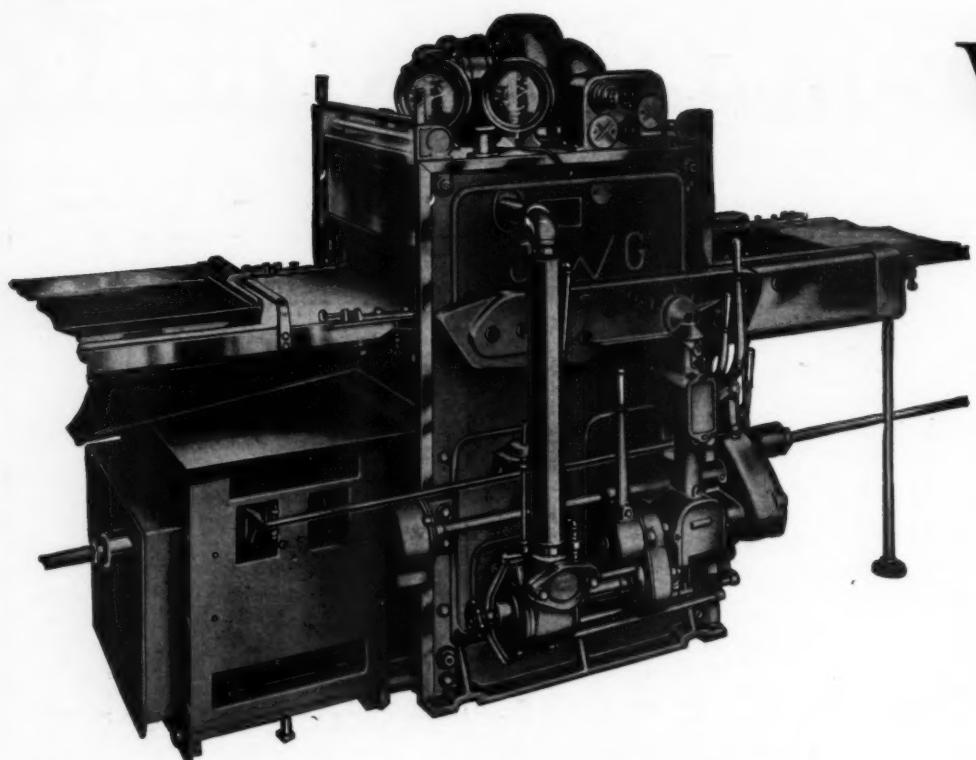
MARCH

3rd Month
31 Days { 4 Saturdays
{ 4 Sundays }

Birth Stone: Bloodstone
Birth Flower: Violet

Day of Month	Day of Week	EVENTS	Day of Month	Day of Week	EVENTS
1	S	Opening of Leipzig Trade Fair, Leipzig, Germany	1	W	All Fool's Day.—Monthly meeting Retail Confectioners Association, Philadelphia, Pa.
2	M	Texas Independence Day.	2	Th	.....
3	Tu	St. Patrick's Day goods all shipped! And what about Mother's Day candies? These should be well on their way and ready for shipment by April 1st.	3	Fr	Five-day meeting, American Chemical Society, ends.—Regular meeting, Wolverine Candy Club, Hotel Norton, Detroit, Mich.
4	W	Monthly meeting, Retail Confectioners' Association, Philadelphia, Pa.	4	Sa	Four months to July 4th.—Start working on your Independence Day novelties.
5	Th	Monthly meeting, Buffalo Confectioners' Association, Buffalo, N. Y.	5	Su	Easter Day.
6	Fr	Regular meeting, Wolverine Candy Club, Norton Hotel, Detroit, Mich.	6	M	Easter goods all sold!
7	Sa	.....	7	Tu	.....
8	S	.....	8	W	.....
9	M	Candy Institute of Philadelphia, Board of Directors' meeting.—Monthly meeting, Northern Pacific Nut Growers' Co-operative, Dundee, Ore.	9	Th	Monthly meeting North Pacific Nut Growers' Cooperative, Dundee, Oregon.—Monthly board of directors' meeting, California Walnut Growers' Association, Los Angeles, Calif.—Monthly meeting, Buffalo Confectioners' Association, Buffalo, N. Y.—Beefsteak party, Candy Executive and Allied Industries Club, Long Island Grotto, Brooklyn, N. Y.—For members and friends.
10	Tu	Box manufacturers can give you better prices and better service now on Christmas work than they can in September. Get busy and decide on wrappers, boxes, novelties, etc.	10	Fr	Mother's Day one month from today. Are your goods ready for shipment?
11	W	Last day of Leipzig Trade Fair.	11	Sa	.....
12	Th	Monthly meeting, California Walnut Growers' Association, Board of Directors, Los Angeles, Calif.	12	S	.....
13	Fr	There is quite a lot of Summer camp business to be had if you'll only go after it. Get in touch with the people who run these camps.	13	M	Candy Institute of Philadelphia, board of directors' meeting.—Annual meeting, Management Division, American Society of Mechanical Engineers, Cleveland, Ohio.
14	Sa	How are your crystallized goods shaping up? They are mighty popular in the good ol' Summer time.	14	Tu	Summer goods should be ready for shipment.
15	S	Are those Federal income taxes paid? First quarterly payment is due.	15	W	Meeting New England Retail Confectioners, Boston, Mass.—Monthly meeting, The Diligence Club, Reading, Pa.
16	M	Meeting New England Retail Confectioners', Boston, Mass.	16	Th	Monthly meeting, Confectionery & Chocolate Manufacturers of New York State at Hotel Pennsylvania, New York City.—Regular meeting, The New York Candy Club, Inc., Hotel McAlpin, New York City.
17	Tu	St. Patrick's Day.	17	Fr	Two-day meeting of the International Association of Ice Cream Manufacturers' Cost Council (two days), Eastern District, Hotel Pennsylvania, New York City.
18	W	Monthly meeting, The Diligence Club, Reading, Pa.	18	Sa	.....
19	Th	Two-day Industrial Marketing Conference, American Management Association, Washington, D. C.—Monthly meeting, Confectionery Chocolate Manufacturers of New York State, Hotel Pennsylvania, New York City.—Regular meeting, The New York Candy Club, Inc., Hotel McAlpin, New York City.	19	S	.....
20	Fr	Easter line all finished! Some retail stores already showing eggs, bunnies, and other Easter items.	20	M	New York Toy Fair, April 20th to May 2nd.
21	Sa	First day of Spring, tra la.	21	Tu	.....
22	S	Emancipation Day. (In Porto Rico only.)	22	W	.....
23	M	Now is the time to buy Brazils and cocoas—the market cannot go much lower.	23	Th	Two-day meeting of the International Association of Ice Cream Manufacturers, Central District Cost Council, Palmer House, Chicago, Ill.
24	Tu	Monthly meeting, Candy Square Club, Hotel McAlpin, New York City.—International Association of Ice Cream Manufacturers' Cost Council (two days), Eastern District, Hotel Pennsylvania, New York City.	24	Fr	Retailers getting ready for Mother's Day displays.
25	W	Annual meeting, Association of Cacao & Chocolate Manufacturers of the United States, New York City.—Maryland Day (in that state only).	25	Sa	Confederate Memorial Day (Southern States).
26	Th	.....	26	S	Monthly meetings, Candy Executives and Allied Industries Club.—Three-day insurance conference, American Management Association, Palmer House, Chicago, Ill.
27	Fr	Favorable time for purchasing figs, also dates.	27	M	Monthly meeting, Candy Square Club, Hotel McAlpin, New York City.
28	Sa	.....	28	Tu	.....
29	S	.....	29	W	.....
30	M	Meeting American Chemical Society, Indianapolis, Ind., up to and including April 3rd.	30	Th	.....
31	Tu	.....	30	Th	.....

THOUSANDS



Played an Important Part All Over the World

Ten Years Ago the GREER Coater was unknown.
Today finds Greer Coaters the first choice of the World.

Obsolete or inefficient coating methods or machines not suitable
Modernize your Coating Department with GREER COATERS and
increased efficiency and higher quality goods obtained at lower cost.

J. W. GREER CO.

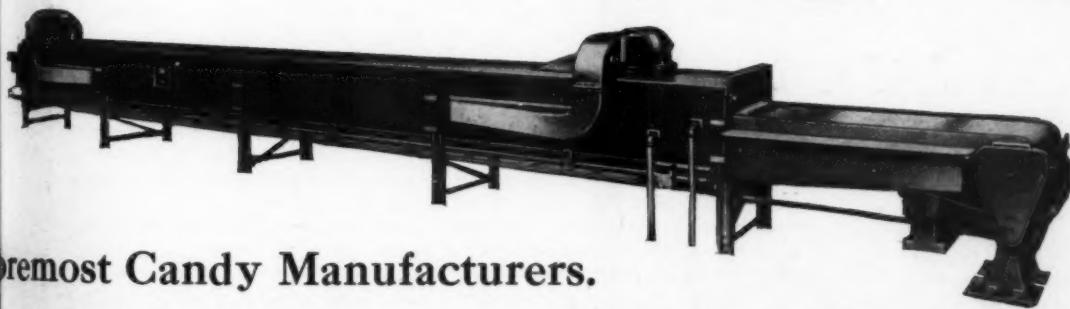
London, N.Y. & C.
Manufacturer of Confectionery Machinery

\$100,000,000 OF DOLLARS

Are Spent During 1930
Modernizing Candy Plants

*But There Are Still Many
to Be Brought Up-to-Date*

ENGINEER MACHINERY Has
Put in Modernizing Plants



...
world's foremost Candy Manufacturers.

Companies not survive today's keen competition in the candy business.
DATA and COOLERS and you will be pleasantly surprised at the
reduced power cost!

...nden & Co., Ltd.

Affectionately Known as the Candy Company That Pays Dividends

Cambridge, Mass.

Your Cost Figures! Are They Telling You the Truth?

Remember once again that "Plant Performance" is the Basic Product You are creating

By F. A. Magee

RO department of accounting has been so disturbed by theories that were not only inharmonious, but frequently conflicting, as has the determination of production costs. No phase of accounting has embraced the employment of so many different methods of accomplishing one result. Cost accounting has proceeded on plans ranging from general estimates to the use of forms and methods that revealed each element of cost in every process, for each part of every article produced.

Many theories and methods have been employed in the allocation of burden or factory overhead so that each product will receive its just share of expenses and reflect in the records a true cost.

It is obvious that different methods of distributing factory expense can be used to obtain production costs and it is also apparent that these different methods will produce different cost results.

Hundredweight Basis May Prove Deceptive

SOME candy manufacturers distribute their factory expense on a hundredweight basis. A manufacturer engaged in the production of a general line, including both light and heavy goods and using this basis for costs would show, perhaps, a cost figure on his heavy goods in excess of what the market, as a whole, would permit, while his light goods costs would indicate that a splendid profit could be realized.

It is true that this manufacturer could operate at a profit with sales prices established on costs determined in this way, but he could conduct his business successfully only so long as his production and sales were distributed between light and heavy goods.

If his market trend changed and he was compelled to confine his production only to light goods, his anticipated profits would not be realized, because that share of the overhead, which was being absorbed by the heavy goods would, of necessity, have to be thrown on the light weight product.

It can readily be seen that it is inconsistent to charge the same overhead to one hundred pounds of fudge as to one hundred pounds of marshmallows which have almost fifteen times the volume of fudge.

Direct Labor Method Apt to Mislead

A LETTER was received in my office in a few days ago from a western confectioner, who stated that his cost system had been in use for several years and was giving satisfaction. He, also, said that factory overhead was being distributed on a direct labor basis.

I had just returned from a visit to a plant engaged in the production of bar goods. Two bars in particular were very vividly recalled to my mind by this letter. One bar was prepared almost entirely by manual labor, while the other received about 90 per cent mechanical treatment in its production. In the manufacture of the first bar about ten men were engaged with equipment consisting of three tables. The second bar necessitated the use of very expensive, highly efficient, special machinery, which was looked after by about three men.

On a direct-labor basis of distribution of factory overhead the first piece would be charged with more than three times as much depreciation, power, rent, etc., as would the product actually being produced by the machine, whereas the hand-prepared bar *actually* incurred no expenditure for this particular ma-

chinery, the power it consumed and the floor space it occupied.

In both of the instances cited, it is true that cost figures would be available, but in each instance those figures would not disclose the true relationship of the cost on one piece to the other. They would not reflect a true picture of what was required on a dollar and cents basis to produce either one of the pieces.

If these methods are productive of misleading costs, the logical question is, "How shall factory overhead be distributed so that each product will receive its just and proper share of such expense?"

If it were possible to enter the manufacturing district of a large industrial center and find that all signs had been removed from the buildings, we would know instinctively, that within those buildings production of some kind was being carried on, but we would have no means of knowing just what particular products were being made.

If we entered any one of the buildings we, perhaps, would be directed to the information desk, and we might learn that the organization consisted of executives, purchasing department, accounting department and various clerical groups. We would still be in ignorance of the merchandise being produced.

We might go into the receiving room, view the raw materials and even many of the preparatory operations without attaining any particular knowledge of the physical structure and shape of the finished product. If we were not familiar with the line, we might have to go as far as the final assembly stages to find out what was being manufactured.

Must Think in Terms of Plant Performance

YET, despite all this, all factories are engaged in the production of one thing—the conversion of raw

THE MANUFACTURING CONFECTIONER

materials into finished products, regardless of what form the finished article may assume. They are producing "plant performance."

In previous articles of this series "plant performance" has been stressed as the universal product of all manufacturers. Until the executives and managers engaged in the production of confections begin to think and express themselves in terms of "plant performance," just so long will many varied methods for the determination of production costs prevail within this industry. And just that long will many different costs be developed on similar pieces of goods and price stabilization within the candy industry continue to be a desired but unattainable Utopia.

In the February issue of THE MANUFACTURING CONFECTIONER, the compilation of the production record and its use for executive control was briefly described. The same production record that is used for establishing executive control is used as a basis for the determination of production costs.

With most systems, sales prices are determined by a generally established plan involving in the order named, cost of raw materials, cost of labor, cost of burden, cost of sales and administrative expenses and added profit. Insofar as raw materials are concerned the usual plans can be used in connection with the Fam System. In fact, in a general way, departmental overhead expenses are distributed to departments in accordance with well-known standard plans. However, in the build-up of the Fam System, the distribution of labor and overhead expense to productive departments shows the actual cost of departmental performance as a whole.

In order to illustrate, as briefly as possible, the use of the Fam in establishing factory costs, let us assume that everyone has had experience in allocating general labor and overhead expense to departments, and that total cost of each productive department in the plant for each working period has been compiled.

Departmental Costs Are Found Without Difficulty

HAVING established Fam credits for different products, through various operations, it is simple to compute the Fams of performance produced in each department by periods. Having found the total cost of the department for corresponding periods, the departmental performance cost per Fam can be readily determined by dividing the total departmental cost by the number of Fams produced.

For example: we will assume that for an enrobing department, the cost of direct and indirect labor, rent, depreciation, supervision, light, power, etc., for one month, totals \$5,632. During the same period the departmental production totals, let us say, 2,945 Fams. The departmental cost per Fam would be determined by dividing \$5,632 by 2,945 Fams to find, as a result, the cost of \$1.91 per Fam.

Assuming that a certain product passing through this department goes through three operations on which separate standards are established for each operation as follows: Operation "A" .25 Fams per hundred pounds, Operation "B" .3 Fams per hundred pounds, Operation "C" .2 Fams per hundred pounds.

The total Fam credit of that particular product in that particular department would be the sum of the credits for the three operations or .75 Fam per hundred pounds. To find the departmental cost for this product, the departmental cost per Fam of \$1.91 would be multiplied by .75 (the total Fam credit of the product in that department), and as a result a total departmental cost of \$1.43 per hundred pounds would be established.

Although the example given applied to a single department, the cost of performance through various departments can be determined in like manner, and by totaling the various departmental costs of a particular product and adding the cost of raw materials, a complete factory cost on the finished product is secured.

The simplicity of cost finding in this manner is apparent. In subsequent articles the accuracy and many desirable features of this plan will be outlined.

The Kroger Grocery & Baking Company after trying out the operation of a lunch counter in one of its stores successfully, will extend the service. Albert H. Morrill, president, announced that stockholders had agreed to a plan to serve meals, soft drinks and confections in the company's stores.

N. C. A. Convention Exhibits Growing in Number

INDICATIONS that this year's exposition of machinery, equipment and supplies, held in connection with the annual convention of the National Confectioners' Association in Chicago, June 1 to 5, will set a new mark in interest and value continue to appear. Among the exhibitors that have booked space during the last week or two are: J. M. Lehman Company, New York; American Sugar Refining Company of New Jersey; Dennison Mfg. Co., Framingham, Mass.; Warfield Chocolate Company, Chicago; Milprint Products Company, Milwaukee and Union Confectionery Machinery Company, New York.

This year the program of the convention will reflect more than in the past, the viewpoints of several of the allied trades. Special effort is being put forward to make the sessions of practical value to the producers of gelatine, corn syrup, sugar, transparent cellulose materials, etc. One full day of the convention will be given over, according to present plans, to discussions and talks of interest to plant superintendents.

Industry Will Have Share in National Drug Survey

Louis B. McILHENNEY, president of Stephen F. Whitman Co., Philadelphia, will represent the National Confectioners' Association and L. C. Blunt of the W. C. Nevin Candy Company, Denver, will represent the Western Confectioners' Association on the committee which is co-operating in the National Drug Store Survey. The survey will start early in April in St. Louis, where 10 city drug stores and 1 outlying store will be studied for the period of a year.

"This survey, like the Louisville Grocery Survey whose results have had such far-reaching effects in promoting efficiency in grocery merchandising, is part of the Department of Commerce's efforts to bring distribution machinery on a par in economy and efficiency with its productive processes," says E. G. Montgomery, chief of the Foodstuffs Division of the Department. "Separate sales and costs data will be determined for each of some 5,000 to 10,000 drug store items over the test period of a year."

Proposed Credit Survey Questionnaire

FOllowing is the proposed questionnaire to be used in making the Department of Commerce's survey of credit methods and practices. A form embodying these questions will be sent out shortly. Use this page as a preliminary work sheet in preparing the required data so that, when your questionnaire

is received, it will simply be a matter of transferring figures.

By doing this you will expedite the work of the Survey Committee. Theirs is a tremendous job and it will require wholesale cooperation on the part of this industry and every industry. Let us lead the way—for once!

Survey of Mercantile Credit

INDIVIDUAL answers to these questions will be held absolutely confidential. The Department will consolidate all answers, thereby arriving at a general understanding of credit operations of each line of wholesaling, manufacturing, and commission businesses supplying the retailer in each part of the country.

Information contained herein regarding any individual business will not be subject to the use of any other government department, credit bureau, or any other agency, nor can any government agency check against this report with others made by you.

I—Check type of business.

- (a) Wholesale
- (b) Manufacturing, Selling Direct to Retailers
- (c) Commission House, Selling Direct to Retailers

II—Check kind of business establishment.

Kind of Business	Check Mark
1—Agricultural Implements	
2—Athletic and Sporting Goods	
3—Automotive Supplies, including Tires	
4—Books and Stationery	
5—Clothing, Hats, Caps, and Gloves (Men's Wear)	
6—Coal and Coke	
7—Confectionery (Candy and Soda Fountain Supplies)	
8—Drugs and Toilet Articles and Drug Sundries	
9—Dry Goods and Notions	
10—Electrical and Radio Supplies	
11—Food Products	
12—Footwear	
13—Furniture, Floor Coverings, and Household Furnishings	
14—Gasoline, Lubricating Oil and Greases	
15—Hardware and Stoves	
16—Heating and Plumbing Supplies	
17—Jewelry	
18—Leather and Luggage	
19—Lumber and Building Materials	
20—Music (Musical Instruments and Musical Mdsce.)	
21—Paint, Oil, Varnish and Wall Paper	
22—Paper and Paper Products	
23—Rubber—Mechanical Rubber Goods, such as Belting, Hose and Packing	
24—Tobacco Products	
25—Women's Wear, Millinery and Gloves	
26—if your establishment may not be classified under any of the above lines of trade, specify your kind of business on this line:	

III—Please enter actual figures in dollars.

	1928	1929	1930
Gross Cash Sales			
Gross Credit Sales			
Gross Total Sales			
(Add gross cash and gross credit sales)			
Returns and Allowances			
Net Sales (Subtract returns and allowances from gross total sales)			

IV—Terms. (Check the set of terms most commonly used.)

	Check Mark
1—No cash discount—Net 30 days	
2—No cash discount—Net 60 days	
3—1% ten days—Net 30 days	
4—1% ten days—Net 60 days	
5—2% ten days—Net 30 days	
6—2% ten days—Net 60 days	
7—2% tenth prox—Net 30 days	
8—2% tenth prox—Net 60 days	
9—if the set of terms most commonly used by you is not listed above, specify your terms on this line	

V—Collection Percentages. (Please report the actual dollars in accounts due and collections for each of the months shown at right.)

Outstanding due as of: January 1	Balance 1929	Collections Indicated: 1929 | 1930	
		1929	1930
February 1			
March 1			
April 1			
May 1			
June 1			
July 1			
August 1			
September 1			
October 1			
November 1			
December 1			

VI—Bad Debt Losses. Please enter actual figures in dollars.

Net Losses for bad debts

VII—What proportion of your customers attempt to take unearned discounts?

VIII—What proportion of your customers attempt to dictate terms?

IX—Credit Policies and Methods.

(a) Please state all sources of information, including trade organization and specialized credit services used in the routine operation of your credit department.

.....

.....

.....

(b) Please state sources of information that are especially relied upon in investigating and determining the credit responsibility of a new business enterprise.

.....

.....

.....

(c) Please state what minimum standards are required by your credit department in accepting the credit of a new business enterprise.

1—As to capital

.....

.....

.....

2—As to character and training

.....

.....

.....

3—As to economic opportunity

.....

.....

.....

X—Please fill in the name of your concern and the title of the official who is responsible for the accuracy of the report. Such means of identification will enable the Department to get in touch with you if your figures are out of line with those of the average concern. The Department will give a serial number to each concern and its report immediately upon its receipt, and will then detach this part containing your name from the body of the report, and will keep this means of identification in the hands of a responsible officer. In this way our clerical staff can not identify any individual report.

(The following will be detached on this line)

(Name of concern reporting) (Street Address)

(City) (State) (Title, or name of person furnishing the information)



INSTITUTE

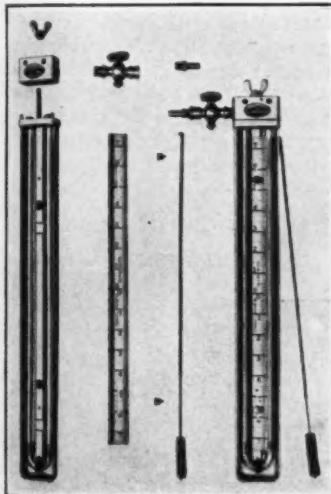
An impartial reader service devoted to the analysis and discussion of the new or novel methods of manufacture, supplies and equipment.

New Manometer Easily Disassembled for Cleaning or Repairs

A NOVEL design of U-tube manometers and flow meters for measuring pressure or flow of any liquid, steam or gas, is now on the market. The distinctive feature of these instruments is that they can be removed from the line for cleaning, replacement, etc., without unscrewing the pipe connections.

An instrument of this type consists of two separate parts—the head, which is permanently attached by the pipe connectors to the line; and the housing which carries the scale and tube, and which may be readily removed from the head by unscrewing a convenient wing nut.

The wing nut engages with a vertical stud in the housing, and serves to hold the two parts of the instrument in place. The rubber gaskets which keep the ends of the U-tube pressure-tight fit into tapered holes in the head communicating with the pipe-line; and thus a moderate tension of the wing nut exerts ample compressive force on the gaskets to pre-



vent all leakage. Dowel pins assure correct alignment of the head and housing. Spring clips at the back of the housing hold a cleaning brush suitable for the size of U-tube used.

The new instruments are expected to

be a great convenience in the many cases where dirt is carried over from the pipeline into the instrument; or where for any reason it is desired to replace a broken tube, or to replace one instrument by another of different capacity. Manufactured by the Merriam Co., 1955 W. 112th street, Cleveland, Ohio.

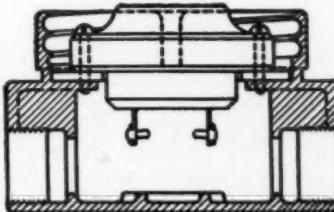
New Vapor-Proof Conduit Fittings Make Alterations and Additions Easy

A LINE of vapor-proof conduit wiring fittings has been announced which, it is stated, combine unusually complete protection from steam, fumes and vapor with ready facility for making subsequent changes and additions to the installation with a minimum of trouble and expense.



Adalet Fitting

The tests successfully passed by these fittings included exposure to steam-laden air for 72 hours. This test was first made with the fitting intact and then with both the globe and the bulb broken. In all cases the wiring chamber was



Sectional View of Junction Box

found to be perfectly dry at the end of the test.

Although fully vapor-proof, the fittings are so designed that practically any required form of fitting may be readily

made up to suit special needs, or modified to suit later changes or additions to the installation as may be desired.

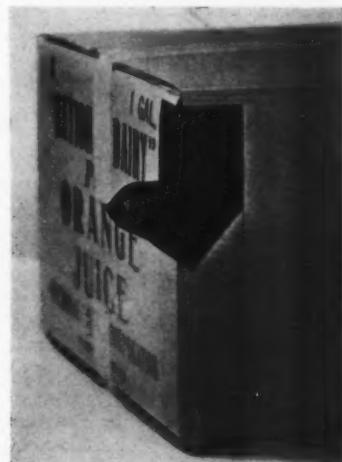
The standard vapor-proof fitting consists of a one-piece casting having provision for attaching guard or reflector holder. The guard is of the bayonet-joint type, and is provided with two locking screws instead of only one. This assures proper alignment when the guard is installed on the fitting.

The fitting is sealed, oil and gas proof, by means of an approved glycerine-imregnated gasket resting on a machined surface. The receptacle is still further protected by being silax-waxed so that it remains vapor-proof even though, as in the tests mentioned above, both the bulb and the enclosing globe are broken.

The junction boxes are the same in general design as the standard fittings except that they are so made that various types of covers may be attached for mounting 45 degrees and 90 degrees angle fixtures, receptacles, switches, etc. Manufactured by The Adalet Manufacturing Company, 4610 St. Clair avenue, Cleveland, Ohio.

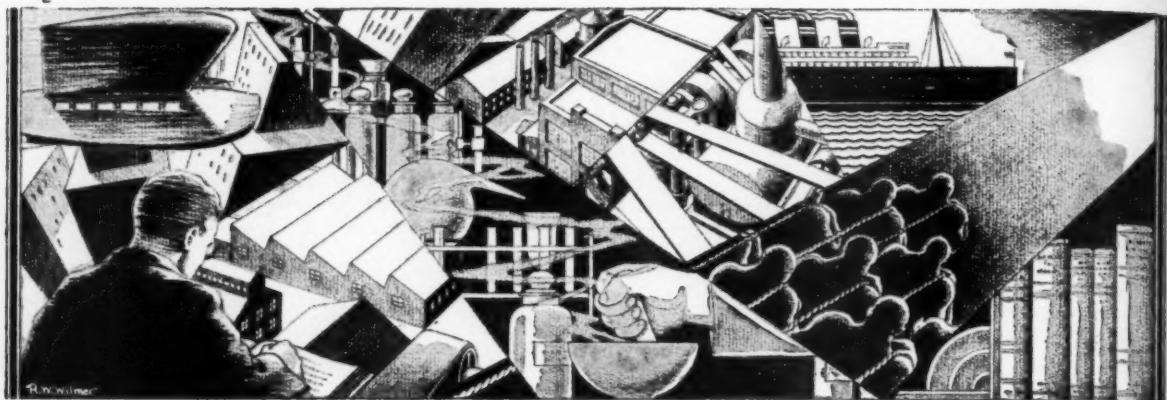
Corrugated Containers With Moisture-Proof Joints

"G AIRTITE" is the name of the new moisture-proof gummed tape just perfected by the Robert Gair Company of New York for use on their corrugated containers. The tape utilizes the moisture resisting qualities of odorless asphalt. And unbroken film of this material, buried between cambric and



gummed craft paper, makes possible a joint which, it is claimed has resisted every conceivable condition of atmospheric moisture in the numerous tests it has undergone.

The rapid growth of the frozen foods industry and the increased use of refrigeration with its damp atmospheres forced the development of this type. It is suggested particularly for use of manufacturers for export whose goods are affected by the damp sea air and inevitable condensation experienced during shipping.



Monthly Digest of CURRENT TECHNICAL LITERATURE

Vintage Flavors Now Pro- duced Without the Use of Alcohol and Suitable for Use in Candy



By H. Bennett, *The
Fruit Products Jour-
nal*, vol. 10, p. 16.

SINCE the advent of prohibition much work has been done toward reproducing liquor flavors—not for beverages—but for imparting to sauces, cakes, sherbets, candies, etc., those piquancies and nuances of flavor which give such an irresistible appeal to so many European confectionery products. The solution of this problem involved the production of a solvent which would act as a carrier for the essential oils and other flavoring principles and which would blend into specific combinations with harmony to produce the required bouquet.

The series of solvents investigated in this connection were glycopons. One, in particular, was found most suitable for this purpose—glycopon XS, a grade possessing an odor between that of alcohol and the fruit esters. A number of formulas are given for preparing various vintage flavors which may be used in confectionery and other foods, without

using any alcohol and without any conflict with the Prohibition regulations. These formulas include cognac, rum, absinthe, kümmel, anisette, and blackberry brandy flavors.

Activities Under Federal Food and Drugs Act Relative to Confe- ctionery in 1930

IN a recent statement the Food, Drug and Insecticide Administration of the U. S. Department of Agriculture advises that manufacturers, and distributors of confectionery and related products displayed a spirit of cooperation and that trade conditions showed a general improvement during the past year from the standpoint of enforcement of the pure food law. A survey revealed that artificial color and flavor are commonly used in various so-called fruit confections without declaration on the label and a notice advising of the necessity for putting an end to this illegal practice was issued to the trade. Attention was directed particularly to chocolate-covered cherries which frequently were not labeled to show plainly that they were artificially flavored and colored.

Some confectionery containing alcohol was seized and inspectors found several lots of candy which

had spoiled in storage; a quantity of such candy was destroyed. Other violations included failure to declare the weights on packages, improper statements of quantity of contents, and misleading statements as to composition.

A number of importations of confectionery were detained for various reasons, such as presence of alcohol, presence of mold or decomposition, coating with shellac, presence of non-permitted colors, misleading statements as to composition, and faulty statements of quantity of contents. Some of these shipments were either refused entry or destroyed.

Production of Vanilla Extract



By H. Drake-Law,
Food Manufacture,
vol. 5, p. 350.

THE most satisfactory solvent for preparing vanilla extract is spirits of wine, but its cost is almost prohibitive. Numerous means of replacing a portion of the solvent have been used with varying success. Thus 1 per cent of sodium carbonate is sometimes added to replace 10 per cent of the alcohol, and 10 per cent of glycerine or glycol

THE MANUFACTURING CONFECTIONER

serves the same purpose. Other solvents, such as esters and other derivatives of glycol, are also used.

Grinding of vanilla beans preliminary to extraction should be completed rapidly, as contact with most metals spoils the flavor; metallic tin or tinplate is least objectionable. The simplest method of extraction is by maceration or combined maceration and percolation. For large scale operation various types of extractors have been developed and the extracting liquors are circulated by means of a pump.

The rate of extraction is greatly accelerated by raising the temperature, but the maturing properties are thereby impaired. Low grade products, especially the oleo-resins, are frequently extracted at boiling temperature, the time of operation being reduced to 1 to 2 hours. The flavor of all vanilla extracts changes on keeping, the time required for aging being 2 to 3 months. Maturing progresses rapidly at a temperature of 110° F. The best types of containers for holding the extract during aging are made of oak, glass, earthenware, or enameled iron; contact with metals must be avoided as most of them impair the flavor.

Sugar and glycerine are frequently added to assist maturing, but their value is doubtful. Approximately 20 per cent of the extracted vanilla consists of vanillin and similar products and the remainder consists of aromatic resins and substances of unknown composition. The characteristic flavor of the extract, as distinguished from vanillin alone, is due to the latter ingredients and no synthetic substitutes are known. Adulteration and fortification of extracts are possible, therefore, only by the addition of vanillin and similar aromatic products, of which the best known are coumarin, heliotropin, ethyl vanillin and tonquin bean extract. Other ingredients are frequently added to give a certain note or to round off the flavor, but there is nothing to compare with the untouched natural extract.

Our Changing Food Supply

Food Manufacture,
vol. 5, p. 277.

In his presidential address to the Royal Statistical Society, Mr. A. W. Flux pointed out that in Great Britain, since the war, there has been a per capita decrease of nearly

3 per cent in consumption of fish, poultry and eggs, and increases of 6½ per cent in dairy products, 7 per cent in vegetables, 7 to 8 per cent in sugar and sugar products and over 40 per cent in fruit; also decreases of 6 per cent in meat and 10 per cent in cereals. (It is interesting to note that the increase in consumption of sugar and sugar products, including candy, and the general change in food habits in Great Britain is similar to that which has occurred in the United States (see summary of article on "Changing Habits in Food Consumption on p. 60 of the January, 1931, issue of THE MANUFACTURING CONFECTIONER)—Editor.)

Procedure for Making Dextrose Candy



U. S. Patent No. 1,789,983 to David Millar. Official Gazette of the U. S. Patent Office, January 27, 1931, p. 748.

A NOVEL method of making a dextrose candy is described which consists in mixing a batch of dehydrated dextrose with an edible oil, heating the mixture to a temperature sufficient to melt the dextrose, separating the melted dextrose from the oil, and recovering the dextrose candy.

The process also includes making candy from saccharine substances, in general, by mixing with an edible oil, heating the mixture to approximately 260° F., decanting the oil and recovering the candy in melted condition.

Lecithin in Industry

By R. Harold Morgan. Food Manufacture, vol. 5, p. 75.

EGG yolk contains 8 to 10 per cent of lecithin and the soya bean contains up to 2 per cent. Based on alcohol and benzol extractions, a process is now in commercial operation producing lecithin in large quantities at a reasonable price. The commercial product is a dark brown paste containing about 60 per cent lecithin, the remainder being pure soya bean oil with small quantities of phytosterol.

In a general way lecithin acts on

fats as a protective colloid, and tends to prevent the separation of fractional constituents. When cooled, liquefied fats containing lecithin solidify to a homogeneous mass, and this effect is clearly shown in the case of cocoa butter, which normally crystallizes in stages commencing from the outside.

Incorporation of lecithin in chocolate helps to prevent "graying" and by increasing the fluidity, reduces the amount of cocoa butter required. A study of the variation in fluidity of several chocolates after the addition of progressive amounts of lecithin showed that the maximum reduction takes place with about ½ per cent of lecithin. As is well known, water decreases the fluidity and hence the covering power of chocolate to an alarming extent. Experiments with chocolate containing small percentages of added water showed that, by the incorporation of lecithin, these plastic masses can be quickly changed to emulsions of more or less normal fluidity.

Chocolate is a plastic solid in which cacao, sugar, etc., are dispersed in the fat. Air enclosed between the particles probably plays an important part in decreasing the fluidity. Water acts in a similar manner. By warming chocolate at various stages during the manufacturing process the fluidity is increased, presumably due to the escape of some of the enclosed air and to the drying action. Lecithin seems to cause the fat to cling more closely to the other particles of the chocolate, thus enabling air to escape and increasing the fluidity. Furthermore, as in the case of oleomargarine, it binds the water and prevents separation. Lecithin contains phosphorus and vitamins A and D, all of which are essential factors in health.

Rat Control

By J. P. Martin. Food Manufacture, vol. 5, p. 126.

CONTINUING experiments in the Pathology Department of the Hawaiian Sugar Planters' Association, J. P. Martin reports on the relative toxicity of rat poison baits. Captive rats, it was noticed, refused to eat barium cakes unless deprived of other food. Although many rats died from strichnine poisoning, many could eat apparently unlimited

TECHNICAL LITERATURE DIGEST

amounts of wheat treated with this poison.

A more attractive bait was found in the form of wheat treated with thallium sulfate, which has now been generally adopted on Hawaiian sugar plantations as a cheap satisfactory rat bait. It has no bad taste, and its ready ingestion is favored by the rodents. Almost complete cessation of subsequent rat damage has resulted when thallium torpedoes have been thoroughly distributed in the rat-infested areas. Such bait, however, requires to be handled with care, and skin absorption by man is avoided by the use of rubber gloves when the salt is in aqueous solution.

Important Factors in Sugar Consumption



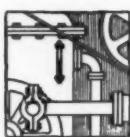
By E. G. Montgomery, Chief, Foodstuffs Division, U. S. Department of Commerce, Food Industries, vol. 2, p. 559.

PER capita consumption of sugar has increased steadily for the past half century and the rate has been slightly accelerated in recent years. No comprehensive study has ever been made which reveals the exact distribution of sugar in the various industries or discloses just how much the household consumption is. Independent estimates agree, however, that about two-thirds of the recent consumption is direct household use and about one-third represents industrial use.

The food manufacturing and processing industries unquestionably are the largest users of sugar outside the household. The baking industry probably consumes the most, apparently using about 10.5 per cent of the sugar of the nation. The candy industry is next in rank, using 8.2 per cent, followed in turn by beverages, ice cream, hotels and restaurants, condensed milk, and canned goods. Manufacturers of tobacco and chewing gum use 25,000 and 15,000 tons, respectively, of sugar per year, and about 6,000 tons are used in proprietary medicines.

A table is given showing the growth of various sugar-consuming industries from 1899 to 1927. The value of the output of the candy industry in 1927 was about $6\frac{1}{2}$ times that in 1899 and the value of bakery products was about 8 times as great as in 1899.

Absorption of Moisture by Sugars at Various Humidities



By R. F. Korfhage and H. A. Schuette, University of Wisconsin. Paper read at American Chemical Society Meeting, Atlanta, Georgia, April, 1930.

THE moisture-absorbing tendencies of sucrose, dextrose, levulose, maltose, commercial invert sugar, and commercial corn syrup were studied at relative humidities ranging from 42 to 93 per cent at constant temperature (77° F.). Their behavior was observed both as mixtures of sugars in varying proportions and as raw materials when boiled into hard candies.

Results obtained with pure dextrose and sucrose candies did not confirm the prediction that candies of such composition would be relatively non-hygroscopic. A corn syrup and sucrose mixture was found to be superior in this respect. Maltose candies, although inferior in quality, were found to absorb moisture at approximately the same rate as those made from a mixture of corn syrup and sucrose.

Use of Aluminum Vessels in the Food Industry



By Dr. H. K. Schindler, Kons.-Ind., 1930, p. 174; Food Manufacture, vol. 5, p. 128.

THE author discusses the use of aluminum vessels in the food industry. It is interesting to note the quantities of this metal which occur naturally in common foodstuffs: thus bread is stated to contain 1.48 parts and cabbage 4.51 parts in 100,000.

The author quotes the results of investigations carried out by the German Ministry of Health to the effect that they have never found any objection to the use of aluminum for containing and preparing foodstuffs, from the standpoint of health, and that their recent re-examination of the matter affords no reason why they should change or modify their original conclusion.

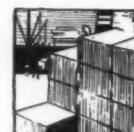
Vegetable Candy



U. S. Patent No. 1,781,636 to Irma Vander Ghennst. Official Gazette of the U. S. Patent Office, November 11, 1930, p. 453.

THERE is described a method of producing a candy which includes, as an ingredient, an initially extracted uncooked vegetable juice and which consists in incorporating this juice in the candy at the time the batch is cooked. There is also incorporated, by cooking with the candy and the vegetable juice for a definite period, a substance for concealing the unpalatable flavor without destroying the nourishing qualities of the vegetable juice.

Extracting and Applying Tea Aroma



Anon. The Perfumery and Essential Oil Record, vol. 21, p. 448.

AN improved process has been developed by two Germans, Otto Strobach and Paul A. Wickmann, for extracting the typical aromatic constituents of tea by use of certain organic solvents. This tea aroma is suitable for flavoring various food products such as chewing gum and candy.

The pure tea aroma is so highly concentrated and contains the tea aroma so firmly combined that it is necessary to dilute it to a varying extent according to the purpose for which it is used. The dilution can be effected by the addition of cane sugar, corn sugar, milk sugar and similar substances whereby the tea aroma is deposited on the particles of a powder by surface adhesion. For many purposes it is desirable not to use the tea aroma separately, but in combination with other substances, such as caffeine and tannin compounds, which are present in tea.

It is possible to produce tea aroma which is entirely free from caffeine and tannin, if desired. For further increasing the durability of the aroma there may be added a small proportion of a suitable resin which is nearly tasteless. This product is believed to have wide applicability for flavoring a variety of foods, including confectionery.

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Cocoa Butter Versus Coco-nut Butter



By C. F. Langworthy. *Tropical Life*, vol. 25, p. 45.

COCOA and coconut butters are practically identical in food value, as measured in calories. Both have a value of 4220 calories per lb. and both are wholesome, edible fats of high nutritive value, in spite of the absence of vitamins.

In comparative experiments the highest digestibility found was 95.5 per cent and 96.3 per cent, respectively for cocoa butter and coconut butter. The lowest digestibility was 79.1 per cent and 88.1 per cent, respectively and the average digestibility was 89.6 per cent and 93.5 per cent, respectively.

A decidedly laxative effect was noted with cocoa butter, indicating that the limit of tolerance for this

fact is not as high as that of some other fats, whereas coconut butter appears to be somewhat more digestible than cocoa butter.

Formation of Emulsions



By W. Clayton, Chief Chemist, Crosse and Blackwell. *Food Manufacture*, vol. 5, p. 79.

IN order to produce a stable emulsion an emulsifying agent must be present in addition to the two principal liquids. A simple rule covering the usual technical emulsions is: oil-in-water emulsions are enhanced when the emulsifying agent is soluble in, or preferentially wetted by, water, and water-in-oil emulsions are enhanced when the emulsifying agent is soluble in, or preferentially wetted by, oil. Typical emulsifying agents yielding the oil-in-water type of emulsion are

gelatin, albumin, gum arabic and pectin.

An essential to successful emulsification is that the liquid to be dispersed should be added slowly, with constant agitation, to the other liquid in bulk. Also, for any type of machine, or mixer used, there is an optimum of speed or degree of agitation for any given period of mixing. The smaller the globules of oil or fat in an oil-in-water emulsion the more stable will be the emulsion, and this is the basis of homogenization by colloid mills, viscolizers and homogenizers. (Carameles, especially those containing much fat, represent an oil-in-water emulsion and thorough emulsification is an important factor in quality. In order to obtain good emulsification the precautions mentioned relative to manner of adding the milk or fat should be followed. Marshmallows represent a typical air-in-water emulsion, the gelatin or egg albumin being the emulsifying agent.—Editor.)

Highlights in the History of Sugar

(Continued from Page 36)

WE NOW IMPORT MORE THAN HALF OF OUR RAW SUGAR FROM CUBA, THE BALANCE COMING PRINCIPALLY FROM HAWAII, PORTO RICO AND THE PHILIPPINES, ALTHOUGH SUGAR CANE CULTIVATION IS STILL CARRIED ON IN A FEW OF OUR STATES, PARTICULARLY FLORIDA AND LOUISIANA.

* * *

The granulated sugar of today is a much more highly refined product than it was when the juice of the cane was first successfully granulated in Louisiana shortly after the Revolutionary War. The crude mills of those days have been replaced with refineries that are outstanding exponents of the sanitation and mechanical efficiency that marks modern American industry. The highest and finest skill of chemists, botanists and engineers, and the best brains of big business men have been brought together in perfecting the cultivation and refining of sugar, with ever-increasing economies—economies that have been consistently passed on to the consumer, as the prices of the last fifty years clearly indicate.

New Booklets

PROFITABLE SELLING IN AMERICA'S GREATEST MARKET

—This is a comprehensive presentation of the sales opportunities in the markets of New York state in terms of profitable selling and practical sales management, just published by the Marine Midland Group, Inc., of New York. It comprises 106 pages of charts, market data, listings of jobbers, wholesale and retail outlets, etc. A limited number available on request.

CANDY DISTRIBUTION IN THE UNITED STATES, 1927-1929—This 32-page booklet has just been issued by the United States Department of Commerce. It gives a comparison of sales volume and values, percentages of increase or decrease and other valuable data for the years 1927 to 1929, inclusive, based upon an analysis of the figures furnished by nearly 500 manufacturers of candy and chocolate. Copies for sale by the Superintendent of Documents, Washington, D. C. Price 10 cents.

LAMBORN'S SUGAR STATISTICAL BULLETIN—An 8-page pamphlet giving the statistical record of the developments of sugar throughout the world during the crop year ending August 31, 1930, with a forecast of the statistical position for the year ending August 31, 1931. Published by Lamborn & Co., Inc., Front and Pine

streets, New York City. Copies free on request.

SUPPLEMENT TO LAMBORN'S SUGAR STATISTICAL BULLETIN—A 4-page supplement to the above bulletin has just been issued in which is presented a table showing the relationship between production and consumption for the various countries of the world for the past five crop years. Copies free on request.

ANCHOR MOLDED CAPS—A 4-page folder just issued by The Anchor Cap and Closure Corporation, 22 Queens street, Long Island City, N. Y., describing their latest molded cap embodying new and unusual closure features. Copies free on request.

The Economy Equipment Company Moves

"The Economy Equipment Company, manufacturers of air conditioning equipment for the manufacturing confectioner, are moving from 1310 North Cicero Avenue to their new location at 2745 High Street, Chicago, where they will have increased manufacturing facilities. R. P. Rasmussen, who was formerly Western manager of the Bentz Engineering Corporation, is in charge of sales, and has had a very broad experience in this special work. Mr. D. S. Graham will assist in engineering at the new address."

STATISTICS

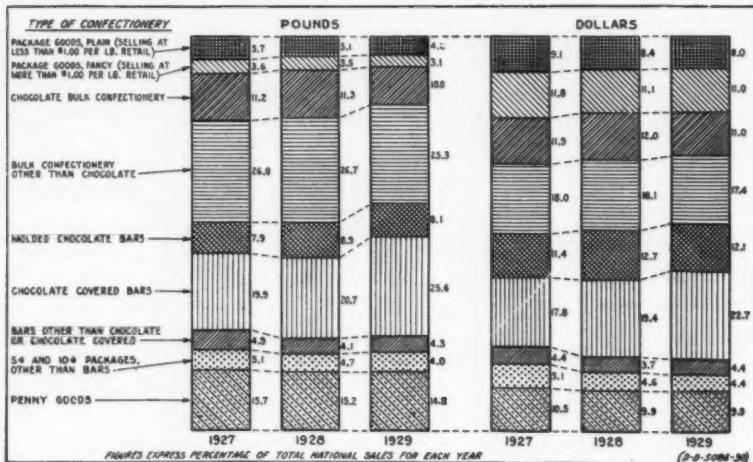


Figure 1*—Relative changes in sales of the various types of confectionery in the United States, 1927-1929.

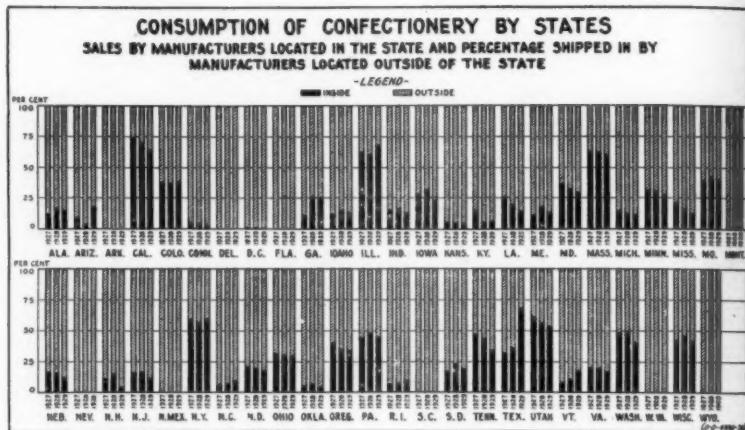


Figure 2*—Consumption of confectionery by states.

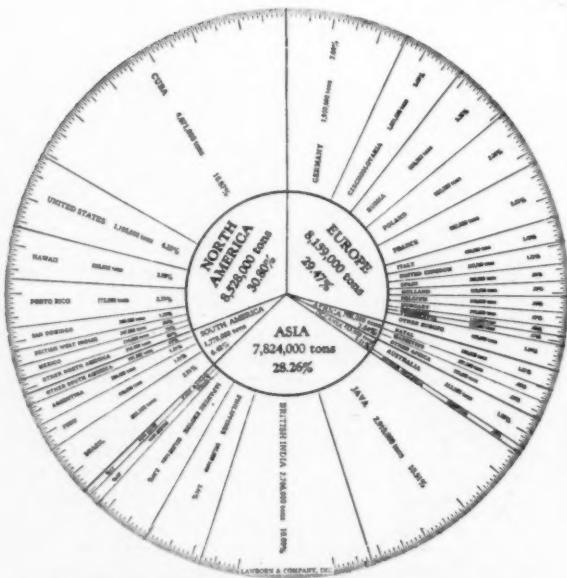


Figure A**—World production of sugar during the crop year ending August 31, 1930—27,690,000 long tons raw sugar value.

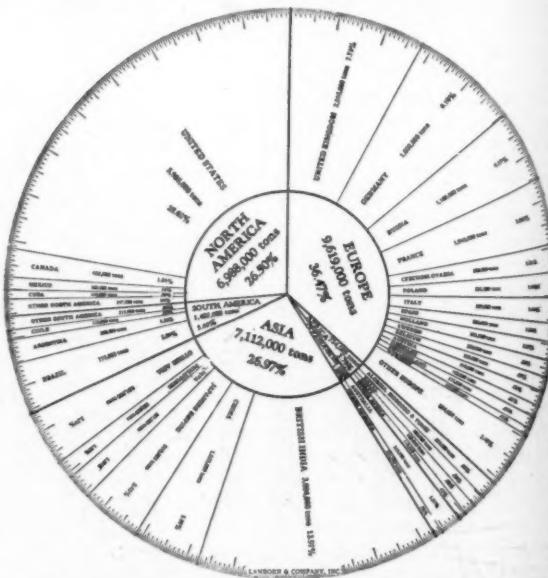


Figure B**—World consumption of sugar during the crop year ending August 31, 1930—26,374,000 long tons raw sugar value.

ASTICS..... ..at a Glance

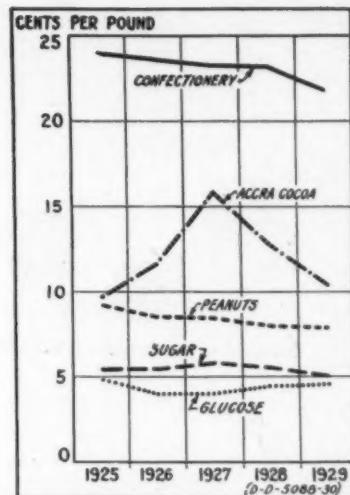


Figure 3*—Average annual price of confectionery compared with prices of leading raw materials, 1925-1929.

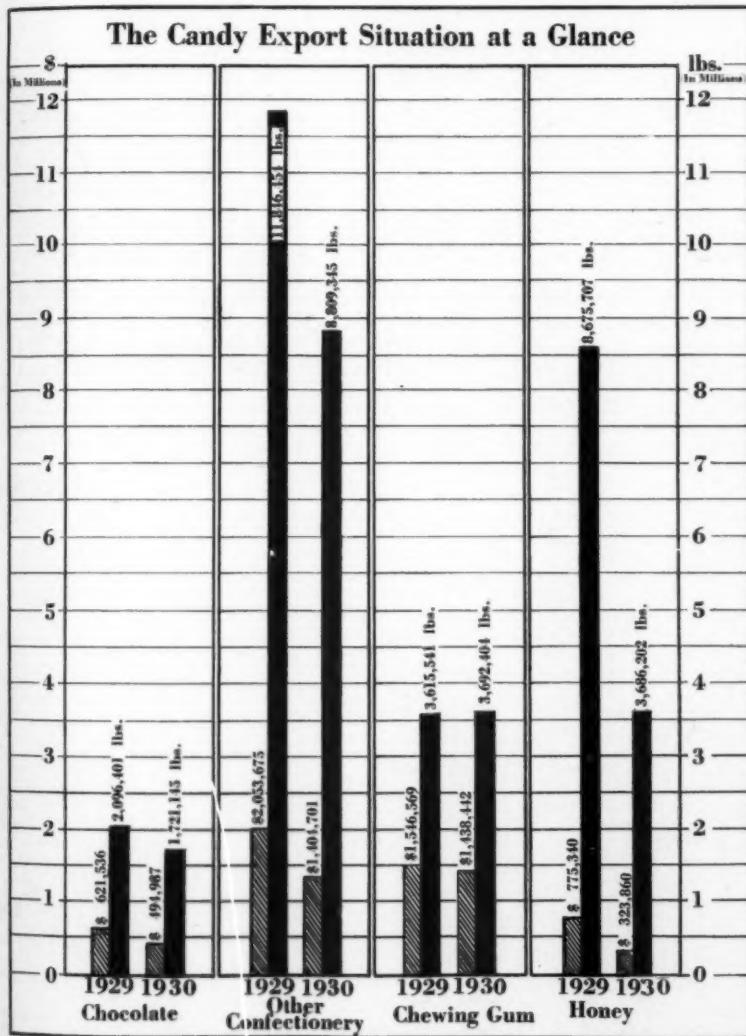


Chart showing the volume and dollars value of U. S. exports of confectionery, chewing gum and honey during 1930 as compared with 1929, based upon preliminary reports of the Department of Commerce.

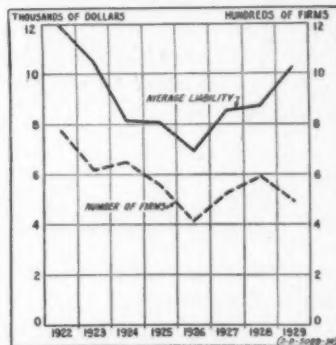


Figure 4*—Bankruptcies in the confectionery industry, 1922-1929.

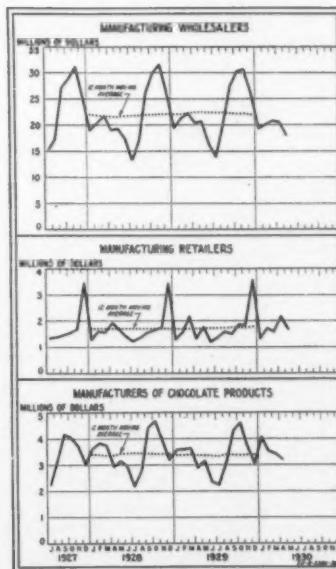
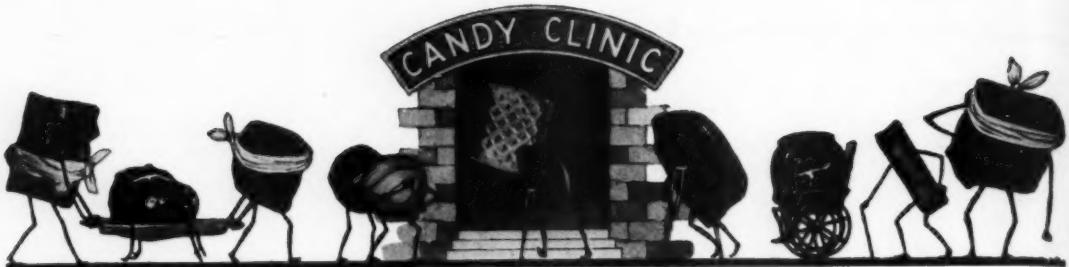


Figure 5*—Monthly sales variations of leading types of confectionery manufacturers, 1927-1930. Dotted lines show annual trends.



The Candy Clinic is conducted by one of the most experienced superintendents in the candy industry. Each month he picks up at random a number of samples of representative candies. This month it is home-mades and Pocket Packages; next month it will be moulded goods, Easter eggs, etc. Each sample represents a bona-fide purchase in the retail markets, so that any one of these samples may be yours.

This series of frank criticisms on well-known, branded candies, together with the practical "prescriptions" of our clinical expert, are exclusive features of the M. C.

Home-Mades and Pocket Packages

Code 3A 31

Home Made Candies—1 Lb., 75c

(Purchased in manufacturer's retail store in San Francisco, Calif.)

Appearance of Package: Attractive and out of the ordinary.

Box: Full telescope, tan color, printing in blue, pink, orchid and Nile green, tied with green grass ribbon.

Appearance of Box on Opening: Fair. Home-made Pieces:

Nut Buttercrisp: Good.

Chewey Kiss: Good.

Walnut Taffy: Good.

Brazil Nougat Kiss: Dry and hard.

Caramellow Orange Flavor: Not a good eating confection.

Mint and Marshmallow: Fair.

Walnut Mallow: Good.

Cashew Nougat Kiss: Hard and dry.

Glaced Brazil: Fair; not a particularly good eating confection.

Almond Taffy: Good.

Pecan Taffy: Good.

Almond Caramel Waffle: Good.

Brazil Caramel Waffle: Good.

Caramel and Date: Had a sour taste.

Caramel and Orange Peel: Fair.

Caramel and Fig: Fair.

Milk Chocolate Caramellow: Good.

Milk Chocolate Nut Pattee: Good.

Dark Chocolate Tingling Pattee:

Fair; had a scorched taste.

Remarks: Many of these candies had an off taste. Considering the quality of raw materials used, a far better assortment could be made up. The pieces appeared entirely too large; the home-made pieces looked rather crude. Quite a few changes are needed both in the packing and manufacturing if a "bang up" package is desired.

Code 3B 31

Home Made Candies—1 Lb., 80c

(Purchased in a manufacturer's retail store in Boston, Mass.)

Appearance of Package: Good.

Box: Stock box, white; band and name printed in gold.

Appearance of Box on Opening: Good.

All pieces in place and well packed.

Contents:

Vanilla Marshmallow Caramels:

Good.

Brazil Mallow: Good.

Cocoanut Paste: Good.

Red Crystallized Jelly Marshmallow:

Good.

Green Crystallized Jelly Marshmallow:

Good.

Sprinkle Marshmallow: Good.

Orange Crystallized Jelly Marshmallow:

Good.

Paper Cup of Chocolate Paste: Good.

Green Pistachio Nougat: Good.

Cocoanut Bonbons: Good.

Pecan Top Chocolate Caramel: Good.

Fruit Nougat: Good.

Caramel and Nougat: Good.

Vanilla Fudge: Good.

Chocolate Fudge: Good.

Pecan Top Marshmallow: A little dry.

Mint Turkish Paste: Good.

Almond Covered Nougat: Good.

Remarks: This is a good home-made assortment at the price of 80c.

Code 3C 31

Home Made Candies—1 Lb., 70c

(Purchased in manufacturer's retail store in Chicago, Ill.)

Appearance of Package: Fair.

Box: White glazed stock box, printing in gold.

Appearance of Box on Opening: Fair. Goods badly scratched and out of place.

Chocolate Coatings: Milk and dark.

Centers:

Dark Chocolate:

Chocolate Caramel: Tasted as though it were made of scrap.

Peanut Butter Blossom: Fair.

Vanilla Cream: Good.

Vanilla Buttercreams: Had an off taste.

Milk Chocolate:

Almond Clusters: Good.

Walnut Cluster: Very strong taste.

Vanilla Taffy: Fair.

Molasses Plantation: Too hard.

Pecan Cluster: Good.

Cocoanut Truffles, Spiced Fudge Centers: Fair.

Home-Made Pieces:

Chocolate Fudge: Good.

Chocolate Caramel: Good.

Vanilla Nut Caramel: Good.

Plain Vanilla Caramel: Good.

Chocolate Nut Caramel: Good.

Remarks: This box of chocolates and home-mades is not a 70c value. Suggest a liner be used, also a layer board. This package needs checking up.

Code 3D 31

Chocolate Assortment—1 Lb., 35c

(Purchased in a confectionery store in Bridgeport, Conn.)

Appearance of Package: Good for this priced goods.

Box: Full telescope. Design in blue, gold and green. White transparent cellulose wrapper used.

Appearance of Box on Opening: Good.

Chocolate Coating: Dark, sweet.

Gloss: Good.

THE MANUFACTURING CONFECTIONER

Strings: Good.
Taste: Good.

Centers:

Molasses Plantation: Good.

Butterscotch: Good.

Vanilla Caramel: Good.

Vanilla Cream: Good.

Chocolate Nougat: Good taste but dry.

Molasses Sponge: Good.

Nougat: Good.

Nut Paste: Good.

Peanut Glace: Good.

Maple Cream: Good.

Raspberry Cream: Good.

Coffee Cream: Good.

Cocoanut Taffy: Good.

Peppermint Cream: Good.

Lemon Cream: Good.

Vanilla Nut Cream: Good.

Cocoanut Cream: Good.

Wine Jelly: Good taste; partly grained.

Assortment: Good.

Remarks: This box of chocolates is of very good quality. Coating and centers are in the dollar class of goods. It is impossible to put out a pound box of chocolates of this kind for 39c. The goods can not be manufactured, regardless of cost of labor, raw materials, etc., and sold to the consumer at such a low price.

Code 3E 31

Stuffed Dates—1 Lb., 39c

(Purchased in a department store in Boston, Mass.)

Appearance of Package: Good.

Box: Tray type, covered with gold paper; gold dividers used. White transparent cellulose wrapper; tied with green ribbonzine corner to corner.

Walnut and Almond Dates:

Texture: Good.

Color: Good.

Taste: Good.

Almonds Blanched: Good.

Walnut Charbutis: Good.

Remarks: This is an exceptionally good package of stuffed dates and should be a good seller at the price of 39c per pound.

Code 3F 31

Chocolate Covered Peppermints—

4 Ozs., 25c

(Purchased in a chain drug store in New York City.)

Appearance of Package: Good.

Box: Set up. White transparent cellulose wrapper used.

Contents: 16 pieces of thin chocolate peppermint wafers.

Chocolate Coating: Bittersweet.

Gloss: Fair.

Taste: Good.

Centers: Too soft.

Flavor: Good.

Cream was not up to standard and was very much off color.

Remarks: These peppermints need checking up; they were not properly made. Half of the pieces were broken. Suggest a partition with eight sections be used—this will prevent breakage.

Code 3G 31

Chocolate Covered Peppermints—

4 Ozs., 25c

(Purchased in a drug store in New York City.)

Appearance of Package: Fair. Soiled from handling.

Box: Folding.

Contents: 12 pieces of chocolate covered peppermints, cupped.

Chocolate Coating: Bittersweet.

Gloss: Fair.

Taste: Fair.

No strings.

Centers: Too soft; most all pieces were broken.

Flavor: Good.

Remarks: These peppermints need checking up; the centers were not made right. Suggest the use of a transparent cellulose wrapper. At the price of 25c for 4 ozs. a far better piece can be made.

Code 3H 31

Chocolate Pistachio Tablets—

4 Ozs., 30c

(Purchased in a manufacturer's retail store in Springfield, Mass.)

Appearance of Package: Neat.

Box: Plain white, name in gold; tied with green ribbonzine.

Box contained solid tablets of milk chocolate with pistachios of good quality.

Remarks: This is a good eating confection.



THE CANDY CLINIC

Code 3I 31

Chocolate Rings—3 Ozs., 25c

(Purchased in a manufacturer's retail store in Springfield, Mass.)

Appearance of Package: Neat.

Box: Pink, name in gold; tied with pink ribbonzine.

Box contained chocolate peppermint rings.

Coating: Good.

Center: Fondant good; flavor too mild.

Remarks: This is a good eating piece but needs more flavor.

Code 3J 31

Chocolate Covered Orange Peel—4 Ozs., 25c

(Purchased in a hotel lobby in New York City.)

Appearance of Package: Fair; box soiled.

Box: Folding. Printed in orange, green and blue.

Contents: Chocolate dragee orange peel.

Chocolate Coating: Good.

Gloss: Good.

Taste: Good.

Panning: Good.

Center: Orange Peel.

Texture: Good.

Flavor: Good.

Remarks: Suggest a transparent cellulose wrapper be used to protect it from dirt.

Code 3K 31

After Dinner Mints—1½ Ozs., 10c

(Purchased in a drug store in New York City.)

Appearance of Package: Good.

Box: Tin with colored wrapper.

Contents:

Texture: Hard and dry.

Flavor: Hardly any.

Remarks: These mints are not up to standard. Lacked flavor and were hard.

Code 3L 31

Chocolate Dinner Mints—5½ Ozs., 25c

(Purchased in a drug store in New York City.)

Appearance of Package: Good; very nicely put up.

Box: Full telescope, yellow, printing in gold, brown cord used.

Contents: Ten peppermint wafers.

Chocolate Coating: Bittersweet.

Gloss: Good.

Flavor: Good.

Centers:

Texture: Very good.

Flavor: Hardly any could be tasted.

Remarks: This is a very attractive package. Suggest more peppermint oil be used as the flavor was lacking.

Code 3M 31

Molasses Candy—2 Ozs., 10c

(Purchased in a drug store in New York City.)

Appearance of Package: Good for this type of goods.

Box: Folding. Printed in red and black.

Contents: 15 pieces of molasses chewing kisses.

Texture: Good.

Flavor: Good.

Remarks: This box of kisses has been a good seller for years. The quality has never varied.

Code 3N 31

Nut Buttercrisp—4 Ozs., 25c

(Purchased in manufacturer's retail store in Chicago, Ill.)

Plain printed stock box used.

Each piece wrapped in wax paper.

Piece was of good flavor and very tender eating.

Remarks: This is a popular confection; the sample was as good as similar candies we have examined which sold at higher prices.

Code 3O 31

Cordial Cherries—5 Pieces, 10c

(Purchased in a chain drug store in New York City.)

Appearance of Package: Very much soiled.

Box: Carton. Printed with stem of cherries; name in gold.

Contents: 5 pieces of cordial cherries, each piece wrapped in wax paper.

Chocolate Coating: Dark; good for this priced goods.

Center: Cordial; very good.

Cherry: Good.

Flavor: Hardly any.

Remarks: This is a very good cordial cherry but it lacked flavor. Suggest a good cherry flavor be used in the cordial. Suggest also a transparent cellulose or a glassine wrapper be used to keep the box clean.

Code 3P 31

Cordial Cherries—6 Pieces, 10c

(Purchased in a department store in Chicago, Ill.)

Appearance of Package: Good. This package is a chipboard boat printed in cream and red. White transparent cellulose wrapper used.

Chocolate Coating: Good for this priced goods.

Centers of Cherries:

Cherries: Good.

Flavor: Lacked flavor.

Cordial: Mostly cream.

Remarks: Suggest a cherry flavor be used in the fondant as the pie lacked flavor.

Code 3Q 31

Assorted Chocolates—3 Ozs., 10c

(Purchased in a bus terminal in New York City.)

Appearance of Package: Fair.

Box: Full telescope, printed in red and tied with red ribbonzine.

Contents: 7 pieces.

Coating: Fair.

Gloss: All bloomed.

Taste: Fair.

Centers:

Raspberry Cream: Good.

Maple Walnut: Good.

Vanilla Caramel: Too hard.

Fruit Nougat: Good.

Fudge and Cream: Fair.

Fudge: Fair.

Remarks: Cannot criticize at this price.

Code 3R 31

Chocolate Covered Marshmallows—2 Ozs., 10c

(Purchased in a department store in Chicago, Ill.)

Appearance of Package: Good. Tray wrapped in printed transparent cellulose. Tray contained 10 chocolate covered marshmallows.

Chocolate Coating: Good.

Center:

Texture: Good.

Taste: Good.

Remarks: This is a good eating confection.

Code 3S 31

Panned Malted Milk Pieces—¾ Ozs., 5c

(Purchased in a drug store in Chicago, Ill.)

Appearance of Package: Novel and different. This container is made of cardboard in the shape of a tube. Printed in red and blue.

Contents: Balls of malted milk, panned with milk chocolate. A very tasty combination.

Panning: Well done.

Remarks: This is a distinctly new piece among 5c sellers and should enjoy a successful sale.

Management Speaks

(Continued from page 29)

vertising publicity, salesmanship, and of broad intelligent distribution

Again Mr. Ordway Tread, Editor of Business Books, diagnosed the causes of business instability in part as follows: ". . . the competitive and individualistic character of our industries within the nation will ultimately prove to be a fatal defect unless

we can introduce forces that will relate production much more closely to available purchasing power than is now the case . . .

. . . Survival in business by the individual company, by each industry as a whole, and by nations will be assured only by planning production in relation to effective demand and by keeping that effective demand on a progressively higher basis . . ."

Need we say more?

A Chat on

Home-Mades and Fudges

By Eric Lehman

HEXT to the quality of the candies themselves the most important thing about a home-made assortment is the manner in which it is packed. An attractive presentation of one's goods whets the appetite and leaves a pleasant memory. A poorly packed home-made assortment has just the opposite effect. It behooves the manufacturers, therefore, to see that the necessary care is exerted in packing confections of this type. Few of them seem to give a great deal of thought as to the probable condition of their home-mades when they reach the home of the consumer. Some manufacturers fail to use liners, cups or any sort of protective material with a result that these candies when delivered, are all stuck together in an unappetizing mass.

Now, a very nice business can be built up with home-mades if proper care is given them because this type of candy is at present staging a rapid "come-back." Every bit as much care should be given the packing of a home-made assortment as would be given an assortment of chocolates, using liners, cups, layer boards, etc. The pieces should be placed in layers and not piled up in the box one upon the other in a disorganized manner. A clerk who is careful, and uses a little judgment can even pack a very good-looking box directly from the showcase.

Some of the larger houses are going after this business in a rather determined way. They are using attractive boxes and packing them carefully; the assortments are made up of semi-perishable pieces. Practically all of the home-made pieces are wrapped either in transparent cellulose or wax paper. Pieces rolled in chopped nuts, shredded coconut or sprills should always be wrapped individually, otherwise, these small pieces will be scattered throughout the box, detracting much from its appearance.

In planning a package of home-mades or home-mades and choc-

lates, the one layer type of box is most popular. Such a package has to have a good spread. Partitions should be carefully planned and fitted well to the box in order for it to look its best. Plain board dividers should not be used as the grease from the caramels and some of the other pieces will spot the partition detracting from its appearance. If bon bons are to be used, it is best to crystallize them so that they will not dry out and become hard. A good assortment might consist of some wrapped chewy pieces, a few bon bons, wrapped caramels, and assorted chocolates. Hand-roll creams also go nicely in a package of this type.

The box should be plainly dated on the outside so that the retailer can take it out of stock, should it remain unsold after a certain date. Every retailer should know the "life" of the assortment he is handling and should use discretion in selling candies that are approaching the danger line. A stale home-made is anything but a tasty morsel.

Here and there we do run across some very fine fudge but in the majority of cases, the fudges we have bought have been dry and entirely lacking in the kind of taste that calls for more. If fudge is to be sold in one-half or one pound boxes, it is best to cut it in one piece. Small pieces dry out and become hard very quickly. Retail stores should keep fudge in one large piece and cut it as required. By handling it in this manner, the consumer will receive good, soft fudge for his money. We have picked up a number of fudge bars on the market that taste as though they were made from scrap. It is a foregone conclusion that good fudge cannot be made from scrap regardless of how good the scrap may be. Another dangerous practice is to flavor fudge with cheap cocoa. Cocoa has a tendency to shorten the life of fudge as it dries it out quickly, the fudge becoming hard in a short time. Use a good liquor chocolate—it will lend a good flavor and help to keep the fudge soft.

Putting Faith to Work

GENTLEMEN, our prices have hit rock bottom."

Such, in effect, is the guarantee just broadcast by the California Almond Growers Exchange against further decline in the prices of their commodity.

This forward and unique step in the promotion of trade confidence should be welcomed even by that astute group of business men, the professional buyers, whose success is measured by the economy of their purchases. Until commodity prices reach a fair degree of stabilization, business recovery, now long overdue, will remain vexingly elusive.

At such times, any move designed to bring about the stability of even a single commodity is desirable as it helps to create a feeling of confidence without which recovery cannot develop. Then too other trades, inspired by the action of one group are likely to follow suit and issue similar pledges and guarantees of price maintenance.

T. C. Tucker, manager of the Almond Growers Exchange, sounds an inspiring note in explaining the reasons for the drastic change in their sales policy. He points out that a number of large corporations have lately issued assurances to all their employees of continuous employment. "No doubt," continues Mr. Tucker, "this will do much to stimulate resumption of business confidence, but we feel that it is equally important that co-operative and commercial concerns should show similar faith in their commodities by protecting the trades handling them at the present time. That is exactly what we are trying to accomplish by going to the almond trade, asserting faith in our merchandise and prices."

Since all other expedients have failed it is well, perhaps, that some are now relying upon faith in the inherent value of their products to help them stem the ebbing tide of legitimate profits.

John L. Clarke Is New Advertising Manager of Necco Candies

The New England Confectionery Company of Cambridge, Mass., manufacturers of Necco candies, announces the appointment of John L. Clarke as advertising manager. He was formerly in charge of merchandising at the Boston Globe.



[Many a crime has been committed against the consumer through the re-use of "scrap" materials. Admitted. Yet there are some unsalable goods which can be transformed into profitable merchandise by the experienced candy maker, just as the frugal housewife and the skillful chef can create tempting dishes from the "leftovers" of the day before. The purpose of this department is not to encourage a cheapening of quality but to show the candy maker how profits can be legitimately reclaimed from some of this otherwise waste material.]

JUDGES and home-mades as a rule dry out quickly and often take on a bad color. If not handled carefully, this variety of scrap can accumulate very quickly both in the store and in the factory. In supplying the retail stores with fudge, it is best to ship as large a piece as possible for in doing so, the fudge will dry out less quickly than were it cut up into small pieces. The retailer can then cut it up as required. One of the chain candy stores making a specialty of home-made candy ships the fudge to its stores in pans weighing from 3 to 5 pounds. These trays are put in the showcase and when a customer makes a purchase only the amount required is cut off. This is by far the best way to handle this type of candy and keep it in a salable condition. When fudge has become hard and lost its finish, it is just about ready to be scrapped. If it is to be reclaimed for use in fudge work, it is best to sort out the various flavors and keep them separated. Then when new fudge is made, this scrap can be added to the batch while it is being boiled or, if it is not too hard, it can be added while the batch is being beaten or at the time the fondant is put in. If a large amount of old fudge is to be used in the new batch it is best to cook the new batch two or three degrees lower so as to make allowance for the difference in the amount of moisture in the fudge scrap which is to be added.

Returned home-mades can be used if they are not too far gone. If assorted, they should be separated. Plain cream bon bons can be used in almost any batch for sugar. Cream wafers and crystallized creams or bon bons can be disposed of in the same manner. Bon bons with nut or fruit centers can be strained out when the batch boils. Use plenty of water when boiling pieces that have been highly flavored. Cocoanut bon bons can be put into a new batch of cocoanut paste which is to be used for centers. Chocolate cocoanut bon bons can be used in chocolate cocoanut kisses. Nut taffies, nut buttercrisps, brittles, etc., can be used in making up new batches of the same goods. Scrap of this kind should be put into the new batches soon enough to allow for thorough melting and mixing. Cream and nut kisses can also be used in making up new batches of the same candies.

There is much spoilage from rancidity in fudges and other pieces containing large amounts of butter or fat. If fresh cream is used, in place of butter wherever possible, much of this spoilage can be avoided. In using cream remember to add enough salt to compensate for the salt which the butter would have supplied. We have heard of one or two new products on the market which are supposed to help prevent rancidity in the above type of goods.

We had occasion to talk to a man who sold salted nuts along with a

regular line of home-mades. In the course of a year's time, a large amount of the nuts spoiled and were returned. All of these were burned up and, of course, represented a total loss to his firm. Had the company only known it they could have realized something at least on this unsalable merchandise. Companies that make a business of collecting of bones and fat from the butcher shops are glad to relieve you of any spoiled nuts or old oil which you may have accumulated. They will not only remove it from your place but pay you something in return.

(How have you disposed of your returned goods and other scrap materials? Five dollars will be paid for each practical idea on the utilization of plant waste acceptable for publication in THE MANUFACTURING CONFECTIONER. Complete working instructions should accompany your suggestions. Send all ideas to the New York Office of THE MANUFACTURING CONFECTIONER, 303 West 42nd Street.)

Hotel Discovers Big Profit Possibilities in Candy

THE New Yorker Hotel has found that candy sales can become a source of income of astonishing proportions. Ten thousand dollars was added to the operating profit of the hotel during the last year by the sale of candy alone.

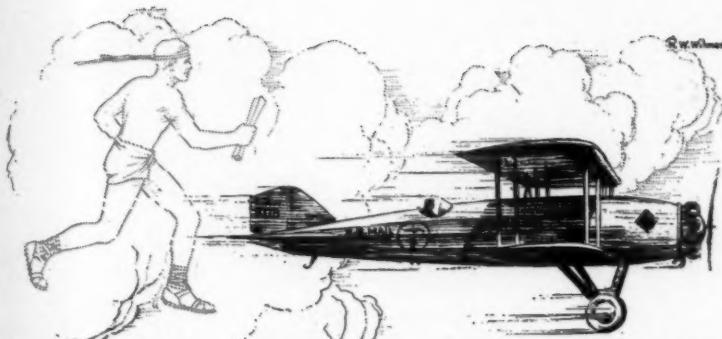
When the New Yorker's tea room was completed, a small triangular space that seemed comparatively useless, was studied and transformed into an active spot by the installation of display cases and a street show window. Three tea room tables were omitted to make the space entirely adequate.

With this "shop" the hotel started to push candy sales, including a small notice for its confections in every one of its large advertisements. The product was good, the displays attractive, the public wanted candy — result: \$37,000 gross sales — \$10,000 profit.

Tariff Commission Abandons Investigation of Candy Production Costs

NOTICE has just been issued by the United States Tariff Commission that its investigation of the differences in sugar candy, confectionery and chocolate production costs, instituted last July under the provisions of the Tariff Act of 1920, has been abandoned.

Inquiry at the offices of the Tariff Commission as to the reason for the discontinuance of this investigation produced little concrete information, other than that it was the result of a resolution of the Senate abandoning its previous action. No reason for the Senate's action was given.



AS WE SORT THE MAIL

Questions addressed to this department will be answered by us from month to month. Readers are invited to make this a forum for informal discussion of subjects of general interest to the candy industry.—The Editor.

Candy and Pickles

I READ with interest your editorial "The Allies and Competitors of Candy" in the February issue. We think you are on the right track, and that candy sales could be increased in connection with the sale of some other lines.

When I was a kid nickels were an unknown quantity, and very few pennies were to be had for buying of candy; but we did have lots of maple syrup.

We used to take this syrup and boil it down and then each kid had some in a bowl and would beat it with a fork until it was nice and creamy. We called this soft sugar. With a spoon in one hand, a sour pickle in the other, we could get away with a lot of maple sugar syrup.

I realize that it would be impractical to pack some pickles in a box of candy, but as you say, in your editorial, there are certain things that would act as a complement to candy, so that more would be consumed.

E. D. T., Jackson, Mich.

Sock!

YES, we noticed the analysis of the Candy Clinic in the last issue, and we wish to advise that the particular package in question, which the Superintendent so freely criticized, happens to be our best \$1.00 package seller. There is only one criticism of the many he has made that we are in accord with, and that is that the color of the creams was too deep. However, we had already discussed this and made a change in the color last month.

We are sorry we cannot sit down with your Clinic Superintendent and discuss, in a frank manner, the quality of our merchandise and compare it with some of the competitive lines which he so highly complimented. We

cannot, for the life of us, see where such a wide variance of opinion could occur, especially where the package he criticized is one of the fastest \$1.00 packages to sell, and we feel we would be very foolish to do anything to change it when we have so many consumers' endorsements for it.

However, all is taken in good spirit and we have no ill feeling in the matter.

H. F., Boston, Mass.

Ah, That's Better!

WE have your letter of February 17, and appreciate your giving us the code number on the article in your February issue, under the "Candy Clinic Survey." We have always watched this survey in each issue, and are glad to have our goods analyzed and criticized. It is a great assistance in making improvements.

D. L. G., San Francisco, Calif.

Welcome Examination

WE take lots of interest in your "Candy Clinic Department." While the custom is to pick up the boxes yourself, may we send you two or three of our assortments for criticism?

W. P. S., San Francisco, Calif.

Yes Indeed!

WE shall be very glad to examine one or two of your packages for our Candy Clinic but as you probably know, these packages are picked up in the retail markets so that all goods are examined upon the same basis. We would prefer that you give us the names of the assortments you would like analyzed advising us where they may be purchased in San Francisco, and we will have our representative secure them for us.

We appreciate your interest in this department and hope that the above arrangement will be satisfactory to you.

Concerning Glycerine

I KNOW some candy makers use glycerine. What are its advantages and does it replace anything?

Perhaps other candy makers would like to see your advice on this subject.

—W. C., New York.

Glycerine has been used by some candy makers to retain the gloss in fudges, creams and in some chocolate coatings. Its most popular use is in keeping cream work soft—cream bon bons, cream centers, sugar wafers, etc.

It is also used to some extent to give a gloss to pastelle work and on some gum pieces that are not crystallized.

Glacé Nut Meats

Can you give us a formula for the manufacture of glacé nut meats?

L. A. R., New York, N. Y.

Select good size nuts of the kind desired. Make up a syrup of the following ingredients:

Cane A. Sugar—10 lbs.

Cream of Tartar—1 level teaspoon

Water— $1\frac{1}{2}$ qts.

Put these ingredients in a kettle and cook to 305° to 310° F., and then remove from fire. Dip the nuts into the syrup with a bon bon fork and place them on an oiled slab. When the syrup cools heat it up, but do not add any water. When the syrup becomes too dark it should not be used for glacé nuts. This is a perishable confection and it will not stand up well in the warm weather.

South Africa May Supply Chicle for Chewing Gum Manufacturers

Within the next few months South Africa may succeed to the position of an important supplier of chicle to American chewing gum manufacturers if reports are to be credited as true. It is understood that American interests have become definitely interested in the activities of the local euphorbia-tapping industry and have decided to develop this business. Prospects point towards an eventual growth to a size which will employ thousands of natives and hundreds of whites.

Southern Wholesalers to Meet at Atlanta.

The meeting place of the annual convention of the Southern Wholesale Confectioners' Association will be Atlanta, Ga. Richmond, Va., was chosen at the 1930 convention but Atlanta has recently been substituted as this year's convention city. The dates of the convention are July 15 and 16.

Candy Motor Truck Owners Cut Accidents by Training Drivers

MUCH more is being done than the public realizes to develop habits of safety and courtesy on the part of motor truck drivers.

This is shown by a survey recently made of the safety work and driver training being done by members of the National Confectioners' Association. Of those reporting, 23 per cent have driver training systems. 94 per cent are doing something to encourage better driving. In terms of the trucks they operate the showing is even better, for 57 per cent of the trucks are under driver training and the operators of practically all our trucks endeavor in some way to make their drivers careful and courteous.

Most Truck Owners Reward Careful Drivers

It is very generally the practice among these members of the National Confectioners' Association to select their drivers according to prescribed qualifications; to take pains in properly instructing new drivers; to reward good performance on the part of their drivers by bonuses, salary increases or other means; to pe-

nalize poor performance by suspension, dismissal or other means; to have printed or posted rules for safe driving and to require the report of all accidents on special forms.

Most of those who have tried driver training reported that it not only reduces accidents but other operating costs as well and increases business by the building of goodwill. Figures were asked as to the number of accidents and truck miles operated in the first half of 1930. From the 597 who had the records to give, it was found that all combined had 8,252 accidents and operated 131,586,326 truck miles, *an average of one accident to 15,945 miles of operation.*

"Of 448 fleets reporting, 224 found that driver training reduced accidents, 363 that it also reduced other operating costs and 352 that it increased business by building goodwill."

The following table shows the combined results of the returns to date in comparison with those of members of the National Confectioners' Association:

Having Driver Training Systems	Per Cent of Fleets		Per Cent of Trucks	
	N. C. A.	National	N. C. A.	National
Doing Something to Encourage Better Driving	23	44	57	74
Selecting Drivers by Prescribed Qualifications	94	94	82	97
Instructing New Drivers	51	66	56	80
Rewarding Good Performance	57	69	84	87
Penalizing Poor Performance	34	46	64	61
Having Printed or Posted Safety Rules	66	81	88	93
Having Special Accident Report Forms	23	41	50	77
	55	66	77	90

Packaging Conference and Clinic Announced

THE first American exhibit of modern packaging technique will be held on the Roof Garden of the Hotel Pennsylvania May 19th, 20th and 21st, under the auspices of the American Management Association. All package and container manufacturers and other organizations, products or methods which have a definite application to current methods of merchandising and distribution are eligible participants in the Exposition.

The Packaging Exposition is to be held in conjunction with the First National Packaging Conference and Clinic which will also be held at the Pennsylvania. At the conference there will be a discussion on color and attractive design in packaging, the increasing need for good packaging for successful competition, the use of trade marks rather than abstract design, the standardization of packages within an industry, the modernization of an old package without loss

of identity and many other topics of interest to candy merchandisers.

First Mechanical Handling Exposition Scheduled

A UNIQUE exposition has been scheduled for the week of November 30th to December 5th at the Grand Central Palace. For the first time Mechanical Handling Machinery will be shown exclusively. The National Exposition of Mechanical Handling is being conducted under the same management as the National Exposition of Power and Mechanical Engineering.

The More They See . . . The More They Buy

At the recent Wagon Men's Convention in Washington, fully 75 per cent of all items displayed by exhibitors were packed in containers



James King Appointed Nulomoline Sales Manager

FROM the Nulomoline Company comes the news of the appointment of Mr. James A. King as sales manager of the New York office. For many years Mr. King has been associated with candy concerns of repute and for the last twelve years he has put his efforts into building up the contacts of the Nulomoline Company not only over a large part of the United States and Canada but in Europe as well. He has visited, in the service of this company, the larger cities of Germany, Holland, Great Britain, Switzerland, Sweden, Belgium, Denmark, France, Italy and Norway. Mr. King's many friends will be pleased to hear of his advancement.

which allowed their contents to be visible, either in glass bottles, in transparent paper or glassine bags, in transparent cellulose wrapping or in paper boxes with a window which permitted their contents to be seen. Some noticeably effective transparent packages were used for plum puddings, dates, figs and boned herring. Transparent bags for nuts, noodles and potato chips were common. Specialty items such as are handled by truck service wholesalers need to take full advantage of the sales appeal which comes from making products visible. There is little doubt that manufacturers are doing this wherever it is at all possible. One otherwise attractive line of mayonnaise and relishes lost much of the sales appeal because the labels around the bottles were so large as to practically prevent the contents being visible.

